Attitudes toward Sustainable New Zealand Wine held by Millennials in the United States

---

A thesis submitted in partial fulfilment of the requirements for the Degree of Masters of Commerce in Marketing at the University of Canterbury

By Annabelle Karl

Department of Management, Marketing, and Entrepreneurship

University of Canterbury

2018

Acknowledgements

Firstly, I would like to thank my dedicated supervisors Paul Ballantine, Michael Hall, and Ann-Marie Kennedy. Their ongoing guidance and expert knowledge was fundamental to the beginning, middle, and completion of this thesis. I cannot thank them enough for the time and support they have provided to me throughout the duration of my MCOM. Their input and constant reassurance really kept me motivated and positive during this experience.

I would also like to thank Ekant Veer and Sanna Malinen for their efforts as course coordinators of the MCOM Programme throughout my time at UC. I hope you know that your support and positive attitude was extremely encouraging throughout this experience. Additionally, I would like to thank the other staff members of the department of Management, Marketing, and Entrepreneurship, who demonstrate a passion for knowledge and excellence that sets the standards to aspire to.

I also extend my thanks to the rest of the MCOM class, I am thankful to have shared the struggles and rewards with you. Special thanks to Anna, Rodrigo, and Eddie for their friendship over the past year, the weekends would have been much lonelier without you.

Thank you to my family, to whom I owe my whole university experience to. Especially my parents, John and Stephanie, for their ongoing guidance, advice, emotional and financial support throughout my university experience, it is unparalleled.

A special thanks to my partner, Ashton, for making the move with me down to Christchurch to complete my MCOM at UC. I am grateful for you allowing me to prioritise my university work without question over this past year and half. Your constant belief in me kept my chin up and my eyes forward.

Table of Contents

List of Tables

List of Figures

Abstract

The aim of this thesis is to investigate Millennial consumers' intentions, perceptions, and attitudes toward sustainably produced New Zealand wine. This research direction was informed by a thematic literature review which identified there was still no obvious solution as to how wineries should communicate their commitment to eco-friendly practices (Olsen, Thach, & Hemphil, 2012; Delmas & Grant, 2014). This poses a challenge for New Zealand wineries as the industry is 98 percent sustainably certified (New Zealand Wine, 2017a) and consumers have demonstrated a demand for this wine label attribute (Forbes, Cohen, Cullen, Wratten, & Fountain, 2009). It was proposed in literature that wine brands could adopt brand attributes that reflect the values of eco-friendly practices in order to strengthen their position in the market (Orth & Malkewitz, 2008). In order to test this suggestion, two brand personality dimensions were chosen, one from Aaker's (1997) traditional brand personality scale, excitement, and one newly proposed dimension, social (Spielmann, Babin, & Verghote, 2016). The procedure of this research was a 3 (Social vs. Excitement vs. No Brand Personality) x 2 (Sustainable Product Description vs. No Product Description) x 2 (Sustainable Eco-Label vs. No Label) between subjects, full factorial experiment design. The online survey employed a series of twelve print advertisements designed to contain different combinations of the independent variables. The experiment was distributed via Qualtrics and employed 540 North American participants recruited via Amazon's Mechanical Turk. A factorial ANCOVA analysis was conducted to test the hypothesised relationships. The analysis revealed that the three-way interaction effects were non-significant for the three hypothesis: H_1 Purchase Intention, H_2 Perception of Quality, and H_3 Attitudes toward the Brand. However, Eco-Label and Brand Personality had main effects for all hypothesis. Furthermore, a two-way interaction effect was found for Eco-Label and Brand Personality on Perception of Quality. The results of this research have practical implications for the New Zealand wine industry as they demonstrate the importance of eco-labels, which are currently not employed by most New Zealand wine brands, in positively influencing Purchase Intention, Perception of Quality, and Attitudes toward the Brand. Furthermore, the results showed that the Excitement and Social Brand Personalities, which demonstrate the experiential elements of the hedonic product, also increased consumers' Purchase Intentions, Perceptions of Quality, and Attitudes toward the Brand. This research highlights an opportunity for Sustainable Wine New Zealand to develop a sustainable eco-label which can be employed by New Zealand wineries. The theoretical implications of study provide insight for future research in the areas of wine marketing and branding, and eco-labelling.

1. Introduction

1.1. Introduction

New Zealand wine exports reached a new record of 1.66 billion New Zealand Dollars (NZD) in 2017, making wine New Zealand's fifth most valuable export good in terms of value (Euromonitor, 2017a; New Zealand Wine, 2017a). Sauvignon Blanc is the most popular variety of New Zealand wine accounting for volume shares of 53 percent of white wine sales domestically, and 86 percent of New Zealand's wine total exports in 2016 (Euromonitor, 2017a). The United States is New Zealand's largest export market accounting for 29 percent of exports by value (Euromonitor, 2017a). Following closely behind is the United Kingdom and Australia, accounting for 24 percent and 23 percent, respectively (Euromonitor, 2017a). A recent media release reported that New Zealand wine exports to the United States surpassed 500 million NZD in 2016, which is an 11 percent increase from the previous financial year (Szegota, 2017).

The United States has been identified as the world's largest import market for wine, although the wine drinking culture among consumers is still developing (Mueller, Remaud, & Chabin, 2011). Since 2010, the United States has been the largest wine consuming country worldwide (Wine Institute, 2014). In the United States the number of supermarkets selling wine is growing and reached almost 30,000 in December, 2014 (Nielsen, 2015). Furthermore, the average supermarket sells approximately 360 different wine varieties per week making up 42 percent of off-premise wine sales (Nielsen, 2015). Wine brands are feeling the pressure to distinguish themselves from competitors in a congested market and it has been reported that consumers are overwhelmed by the amount of choices available to them (Constellation Wine US, 2005). Nielsen (2017) suggests that "eye-catching" designs are the key to attracting consumers' attention and recommends that "manufacturers should assess to what extent their designs reflect the brand's personality and effectively convey key messages."

In the highly competitive global wine industry, wine producers are seeking ways to differentiate themselves (Thach & Olsen, 2006). A rise in acceptance and a growing demand for "New World" wine from countries such as the United States, South Africa, Australia, and New Zealand has only increased this pressure. It has not been easy for New World wine brands to compete

with the traditional "Old World" wines from countries such as France and Italy, which have a long-standing cultural tradition of producing high-quality wine. Marketers of New World wines have had to be innovative in their approach to advertising and positioning their wine (Thach & Olsen, 2006). They have gained a significant presence in the Millennial market segment, as Millennials are found to be more accepting of new and innovative wine marketing and packaging (Thach & Olsen, 2006). Millennials are the generation of people born between 1980 and 2000 (Higgins & Wolf, 2016). The wine industry's largest market is the Baby Boomer population; people born between 1946 and 1964 (Olsen, Thach, & Nowak, 2007). However, Baby Boomers are now ageing and reaching the decline phase in their wine consumption behaviour (Barber, Dodd, & Ghiselli, 2008; Garcia, Barrena, & Ildefonso, 2013). Generational age cohorts refer to groups of people born within the same time period, of whom are thought to possess unique qualities that are reflective of world events during their adulthood (Cogin, 2012; Glass, 2007; Johnson & Lopes, 2008; Schewe & Meredith, 2004). Although there are criticisms to this segmentation approach, it is widely adopted in marketing research, especially within institutions who research consumer behaviour in the wine industry (e.g. Euromonitor, Nielsen, and the Wine Institute). With these considerations in mind, wine experts are advising wine marketers to focus on a new consumer segment, such as Millennials (Garcia et al., 2013; Wiedmann, Behrens, Klarmann, & Hennigs, 2014).

Wine consumption is steadily rising in the United States; it is estimated that consumption per person rose by 25 percent between 2006 and 2016 (Wine Institute, 2017). The main reasons for this is the positioning of wine as a casual drink, and the diffusion of information on wine and its association with positive health benefits (Barber, 2012; St James & Christodoulidou, 2011). Additionally, an increase in awareness about environmental issues and climate change has encouraged consumers to consider how their consumption affects the environment; in turn, Millennials are looking for ways to consume lifestyle products responsibly (Barber, 2012). A rise in the concern for the environment and health has created an opportunity for winemakers to produce wine sustainably and tap into other consumer health trends such as low calorie, organic, and vegan alcohol. Although these special attribute wines only appeal to a niche market at present (Fairfax Media, 2011; Moroney, 2013; Nicholson, 2017; Pannett, 2015; Tajitsu, 2015), previous market analysis indicates that like the organic food market these items will become staple products in regular supermarkets (Hjelmar, 2011; Sharples, 2000;

Smithers, 2017). The main disadvantage facing these special attribute wines is the confusion around eco-friendly production methods and an associated perception that quality is lost during the production process (Delmas & Grant, 2014; Fotopoulos, Krystallis, & Ness, 2003; Olsen et al., 2012; Remaud, Mueller, Chvyl, & Lockshin, 2008; Stolz & Schmid, 2008; Szolnoki, et al., 2011; Zucca, Mitry, & Smith, 2009). This has presented a challenge for marketers and wineries worldwide, to the extent that some wineries in the United States omit the fact they participate in eco-friendly practices on their wine labels for fear it will damage their sales (Olsen et al., 2012). Additionally, there is a lack of awareness among consumers about the benefits of these production methods and how damaging the effects of conventional wine production practices are for the environment (Barber, 2010; 2012; Berghoef & Dodds, 2011). There have been huge environmental issues facing the wine industry including the use of pesticides, herbicides, fertilisers, organic waste, land water pollution, and over usage of land and natural water supplies (Barber, 2010; 2012; Berghoef & Dodds, 2011). Increased marketing efforts in this category need to be implemented in order to highlight these issues and strengthen the position for special attribute wines in the industry.

This thesis aims to investigate Millennial consumers' intentions, perceptions, and attitudes toward sustainably produced New Zealand wine. In addition, it aims to identify which product attribute, or combination of attributes, is the best method of communicating commitment to sustainable production. Furthermore, it aims to explore whether a strong brand image which highlights the experiential and social elements of the hedonic product, can offset perceptions of low quality and influence positive intentions, perceptions, and attitudes. These elements will be discussed in the following section.

1.2. Research Background

The value of New Zealand's "clean green" image is facilitated by a longstanding, prosperous agricultural industry (Flint & Golicic, 2009). The halo effect of New Zealand's "clean and green" and "100 percent pure" image reflects on to New Zealand's products and services (Clemens & Babcock, 2004; Morgan, Pritchard, & Piggott, 2002; Morrish & Lee, 2011; Skaggs, Falk, Almonte, & Cárdenas, 1996). New Zealand is the only major wine producing country with its own industry body, New Zealand Wine (NZW) (New Zealand Wine, 2017a). NZW is the industry's brand and in 2007 they adopted the slogan "pure discovery" (Brodie & Benson-Rea,

2016). NZW represents and advocates for the interests of the entire industry by investing in innovative research and development, and setting production standards which are recognised worldwide (New Zealand Wine, 2017a). Brodie and Benson-Rea (2016) identified that the wine industry has integrated industry networks, industry organisations, and market and shareholder networks to collaboratively create and innovate the NZW brand. The NZW brand represents the heritage of the production methods and the country in which it is produced (Brodie & Benson-Rea, 2016). In 1997, NZW introduced the Sustainable Wine New Zealand (SWNZ) initiative which has a renowned reputation in the wine industry for commitment to sustainability (New Zealand Wine, 2017b; Szolnoki et al., 2011). Similar initiatives have been adopted by wineries across the world to combat the environmental challenges facing the industry (Zucca et al., 2009). Overall, the wine industry is viewed as a "clean" industry when compared with other industries (Sogari, Mora, & Menozzi, 2016) and much of the environmental impacts are overlooked by consumers despite recent media attention (Barber, 2010; 2012; Berghoef & Dodds, 2011).

Currently, 98 percent of the New Zealand wine industry is certified by SWNZ (New Zealand Wine, 2017a). SWNZ is an industry initiative of commitment to the eco-friendly production of New Zealand wine, with a collective goal towards 100 percent sustainable certification (New Zealand Wine, 2016; 2017b). Furthermore, it is a requirement for wineries that are producing wine for export to be certified by SWNZ (Dodds, Graci, Ko, & Walker, 2013). New Zealand enjoys a distinctive position in the global wine industry which is a combination of product-country image, commitment to sustainability, and quality and flavour of wine (Battersby, 2015; Brodie & Benson-Rea, 2016; Szolnoki, et al., 2011; Theunissen, 2017). However, similar to wineries in the United States, New Zealand wineries hide their commitment to eco-friendly practices and only display the SWNZ logo discretely on the back of the wine bottle label (Delmas & Grant, 2014; Olsen et al., 2012).

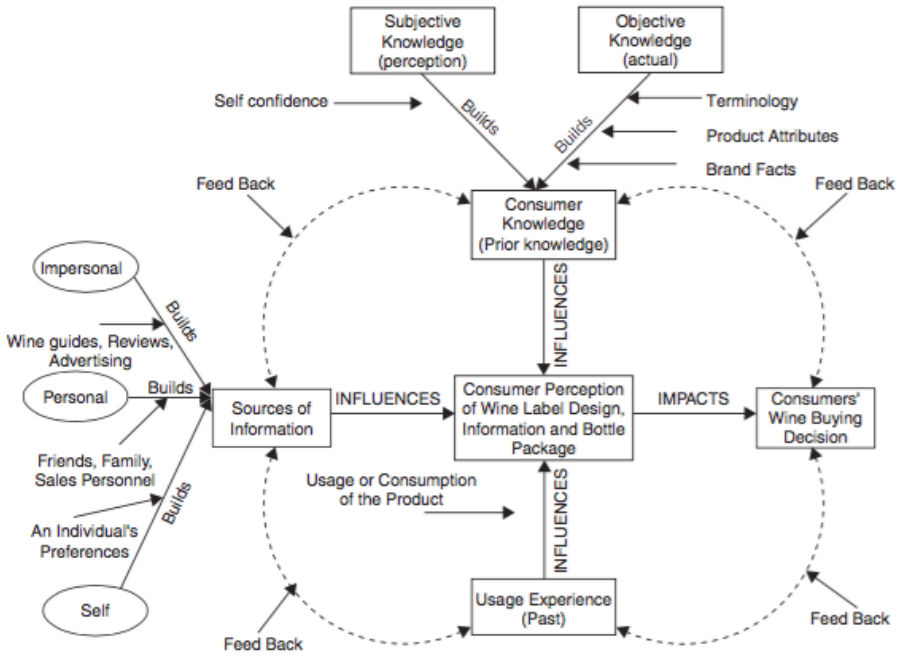
Consumers have demonstrated a rise in their concern for the environment and seek to consume lifestyle products responsibly (Barber, 2012). Millennials have been identified as being more concerned about the environmental and health benefits of products than generations before them (Garcia et al., 2013; Mueller et al., 2011; St James & Christodoulidou, 2011; Thach & Olsen, 2006). However, this intention to be more environmentally responsible is not always reflected in consumers' consumption behaviours. This conclusion is drawn from

the conflicting results of research investigating willingness-to-pay for organic wine over conventional wine, conducted in various countries (Mollá-Bauzá, Martínez, Poveda, & Pérez, 2005; Remaud et al., 2008). Other research has suggested that consumers avoid organically produced wine because of the assumption that quality and taste are lost during the production process. (Delmas & Grant, 2014; Fotopoulos et al., 2003; Mann, Ferjani & Reissig, 2012; Olsen et al., 2012; Stolz & Schmid, 2008). A study by Delmas and Grant (2014) in which they reviewed the prices of wine from 13,400 wineries, revealed that eco-labels were negatively associated with price premiums, however, eco-certification enjoyed a significant price premium. This concept, in which consumers' concerns are not reflected in their purchase behaviour, is referred to as the attitude-behaviour gap (Carrigan & Attalla, 2001). Extant research has indicated that consumers may not purchase from companies that act irresponsibly, however, they also may not reward companies who act responsibly with their purchases (Carrigan & Attalla, 2001).

Conversely, Barber, Taylor, and Strick (2009) surveyed members of the Society of Wine Educators in the United States and found that concern towards the environment positively influenced purchase intentions of eco-friendly wines. Additionally, a study conducted in New Zealand revealed that consumers' have a preference and high intention to purchase sustainably produced wine (Forbes et al., 2009). Despite this finding, most sustainably certified New Zealand wines do not display an eco-label on the front of their bottle. "The wine market relies heavily on how consumers' perceive and understand quality" (Loureiro, 2003 p. 549). Most research exploring the role of intrinsic and extrinsic product cues in wine purchase decisions and shaping consumers' preferences, indicates that these results vary by country and generational cohorts (Garcia et al., 2013; Goodman, 2009). Extrinsic product cues relate to the aspects inside the bottle which cannot be evaluated easily by the consumer (Barber, Ismail, & Taylor, 2007). Whereas, intrinsic cues refer to the search attributes and label information which consumers will refer to when making a purchase decision (Barber et al., 2007).

For many consumers wine is a complex product (Olsen, Atkin, Thach, & Cueller, 2015) and the decision making process requires a certain degree of risk (Barber & Almanza, 2006). Barber and Almanza (2006) identified that consumers use different sources of information when evaluating wine and label packaging. These are referred to as search attributes and are significant factors when evaluating credence and experience products such as wine, especially

eco-friendly wine. Credence products are described as products containing attributes for which the information is not available prior to or after use, for example the sustainable certification or the varietal type (Girard & Dion, 2010). Experience products are products that contain attributes for which the information or evaluation cannot be obtained until after trial or use, for example the taste (Girard & Dion, 2010). Therefore, consumers' reliance on different sources of information to influence the purchase decision is greater. Wine marketers must use packaging related cues to gain the trust of consumers and signal their quality in order to differentiate themselves from other brands. Barber and Almanza (2006) adapted a model by Dodd, Laverie, Wilcox, and Duhan (2005) to help explain the significant influences on consumers' decision making process when purchasing wine (refer to Figure 1.1.).



Barber & Almanza, 2006, p. 88.

Figure 1.1.: Consumer Wine Buying Decision Model

The model indicates the different sources of information that consumers consider before even evaluating the wine label and packaging design. There is a plethora of research investigating the significance of external factors that influence consumers' wine purchase decisions (e.g. Barber et al., 2008; 2009; Bruwer & Li, 2007; Dodd et al., 2005; Goodman, 2009). However, it is clear the wine label and label information plays a key role in the purchase decision, as it is a

stimuli available at the point of purchase. In addition, a Nielsen (2017) study revealed that only 29 percent of consumers know which alcoholic brand they intend to buy before they enter the store, which means 71 percent are making purchase decisions in store. Therefore, this study will investigate different ways to convey information through wine labels to determine which variable, or combination of variables, Millennials respond to positively.

Extant research indicates that traditional wine label layouts and designs are not appealing to the Millennial generation (Hollebeek, Jaeger, Brodie, & Balemi, 2008). Millennials are seeking wine brands to reflect the social and experience attributes associated with consuming the product (Thach & Olsen, 2006). Millennials are stimulated by innovative and interesting brand images, and attractive and creative wine label designs (Henley, Fowler, Yuan, Stout, & Goh 2011; Larson, 2012; Thach & Olsen, 2006). Furthermore, it has been identified that a strong brand image could help wine brands to establish a strong position in the competitive market (Boudreaux & Palmer, 2007; Orth & Malkewitz, 2008; Sherman & Tuten, 2011). Existing research revealed that the brand personality dimensions Millennials identified with are the excitement dimension, established by Aaker (1997; Elliot & Barth, 2012), and the social dimension, developed recently in an effort to extend Aaker's (1997) tradition scale (Spielmann et al., 2016). Aaker (1997) introduced the "big five brand personalities" to the marketing field with the intention to apply human characteristics to brands in order to fulfil symbolic and self-expressive functions. The personality dimensions have been adopted by brands in order to differentiate from their competitors (Aaker, 1997).

Elliot and Barth (2012) revealed that extrinsic cues play a larger role in Millennials' purchase decisions compared to intrinsic product cues. Orth and Malkewitz (2008) also identified that in order to stand out in a highly competitive industry, wine brands need to adopt a holistic brand design which incorporates all of the aspects that Millennials search for in wine products. A strong brand image could help reduce the risks associated with eco-friendly attributes. This recommendation has been largely ignored by winemakers who partake in eco-friendly practices with some omitting this information from their labels (Delmas & Grant, 2014). There is opportunity for winemakers to incorporate these values into their brand image to attract consumers and overcome the stigma of low quality. This research will employ the most popular brand personality dimensions excitement (Elliot & Barth, 2012) and social (Spielmann et al., 2016). Overall, this thesis will reveal whether a strong brand image can complement eco-

friendly attributes and positively influence Millennials' intentions, perceptions, and attitudes toward sustainably produced New Zealand wine.

1.3. Research Objectives

This research endeavours to identify the best way, if at all, for wine brands to communicate their commitment to sustainable practices. It aims to test whether a strong brand image can counteract the stigma of low quality. The research objectives of the study are as follows:

- To determine how sustainable labelling attributes influence consumers' purchase intentions, perceptions of quality, and attitudes toward the brand.
- To determine whether an experiential brand image influences consumers' purchase intentions, perceptions of quality, and attitudes toward the brand.
- To identify whether there are any relationships between the intrinsic and extrinsic attributes that will influence purchase intentions, perceptions of quality, and attitudes toward the brand.

1.4. Research Methodology

This research is concerned with consumer responses to variables within an advertising context. The variables will be manipulated in an experimental research design, and responses will be measured by a series of scales. This study will employ a 3 x 2 x 2 between-subjects, full factorial design to test the effects of different brand personality dimensions and eco-friendly labelling cues to measure resulting purchase intentions, perceptions of quality, and attitudes toward the brand. An experimental design was selected because the data collected will be analysed in terms of the independent variable constructs and the interrelationships between the different variable combinations.

1.5. Research Contributions

This research is expected to have both theoretical and practical implications. It is anticipated this research will have academic contributions in the brand management, consumer behaviour, and advertising fields of wine research. The study will also provide branding and labelling insights to New Zealand wineries, especially those seeking to export to the United States.

1.5.1. Academic Implications

This research will contribute to the area of wine marketing literature by expanding the acknowledged, but untested theories behind consumers' behaviours and attitudes toward sustainable wine. This study aims to provide clarity around consumer preferences for eco-friendly wine and the best combination of cues to communicate commitment to sustainable wine production. This will provide future direction for researchers seeking to investigate brand elements and eco-certification and labelling together. In addition, this research aims to build on the current lack of empirical research on New Zealand wine in the field of marketing, specifically consumer behaviour and branding. Finally, this study will test the brand personality dimension "social" developed in a recent study by Spielmann et al. (2016), against the most popular traditional brand personality dimension with Millennials, "excitement". The result will provide direction for future research in the field of branding and advertising.

1.5.2. Practical Implications

This research will test multiple combinations of cues to give marketers insight into the best method to communicate participation in eco-friendly practices. Alternatively, it may reveal that consumers' do not have a preference for these types of initiatives when purchasing wine. It will also uncover consumers' preference for different brand personalities, which will help wineries when making branding decisions. Overall, the research will provide insight into overseas consumers' intentions, perceptions, and attitudes toward New Zealand wine which will be valuable to wineries seeking to enter the United States market. The results of this study will provide practical direction into the design of wine bottle labels.

1.6. Thesis Outline

This thesis consists of five chapters. The current chapter, Chapter One, introduced the field of research and provided theoretical grounds for the chosen subject. It outlined the research method chosen to complete the aims of the research. Finally, it provided justification through discussion of the academic and practical implications. The proceeding chapters will contain the following content:

Chapter Two, Literature Review and Research Hypotheses: The literature review will provide a discussion of the main topics of interest to this study: sustainable wine, eco-certification and labelling, wine branding, and consumption differences between generational cohorts. The

discussion is followed by a summary of the main findings presented in the research gap and objectives section. The findings inform the three research hypotheses presented at the end of the chapter.

Chapter Three, Methodology: This chapter outlines the principal method selected to answer the research questions and to test the hypotheses presented in Chapter Two. It contains details of the experiment including stimuli development, sampling procedure, preliminary pre-testing, and final survey outline.

Chapter Four, Results: The findings of the experiment are presented including a sample overview and results of the hypotheses testing.

Chapter Five, Discussion: The thesis concludes with a discussion of the key research findings. This is followed by an outline of the managerial and theoretical research contributions and implications. Finally, the limitations are presented, suggestions for future research are provided, and the thesis closes with a conclusion.

The next section provides an account of the literature on the key topics of interest to this thesis, which informs the research gap and hypothesis presented at the end of Chapter Two.

2. Literature Review and Research Hypotheses

2.1. Introduction

This chapter provides an account of the literature in the key areas which form the foundation for this research. It begins with a discussion on sustainable wine and highlights the main findings influencing the New Zealand wine industry. The following section distinguishes between eco-certification and eco-labelling, and provides a discussion of the benefits and barriers for wineries in partaking in both processes. The next section is a discussion on wine branding with specific attention to generational differences. The last section outlines the major consumption differences between the generational cohorts to provide insight into branding and contextual decisions. All sections contain a discussion of the literature which specifically outlines consumers' preferences or deterrents for the particular product attributes, which will inform the experimental variables for this research. The literature review is followed by a summary of the main findings which apprises the research gap and objectives. Finally, the research hypotheses are presented followed by a chapter summary.

2.2. Literature Review

2.2.1. Sustainable Wine

Wine is considered an agricultural product and sustainability is an important issue within the agricultural industry (Szolnoki, 2013). The United Nations and European Commission identify the concept of sustainability as three-dimensional based on Elkington's (1997) model of the triple bottom line which outlines a commitment to environmental, economic, and social goals (Casini, Cavicchi, Corsi, & Santini, 2010; Szolnoki, 2013). The first sustainable winegrowing programme was established in 1992 by the Lodi Winegrape Commission in California when they launched a grassroots pest management programme (Ross & Golino, 2008). This was followed by NZW's *Sustainability Policy* in 1997, which formed the basis for SWNZ (New Zealand Wine, 2017b). Similar to Elkington (1997), Zucca et al. (2009) suggest that the three goals of sustainable agriculture are environmental health, economic profitability, and social

and economic equity; attained through a commitment of stewardship of natural and human resources.

The Sustainable Winegrowing Program of California covers fourteen main areas of assessment in evaluating commitment to sustainability: viticulture, soil management, vineyard water management, pest management, wine quality, ecosystem management, energy efficiency, winery water conservation and quality, material handling, solid waste reduction and management, environmentally preferred purchasing, human resources, neighbours and community, and air quality (Zucca et al., 2009). Although definitions of sustainable practices vary from country to country (Klohr, Fleuchaus, & Theuvsen, 2013; Pomarici, Vecchio, & Verneau, 2014; Szolnoki, 2013), the key principle appears to be consideration of all stakeholders affected by activities involved in the production process of wine including the environment, ecosystems, consumers, the wider community, employees, and shareholders, whilst maintaining a comittment to the triple bottom line. Certification criteria and recommended best practices also vary in each country, and even within winegrowing regions in each country, to take into account the different environments and landscapes (Klohr, Fleuchaus, & Theuvsen, 2013; Renton, Manktelow, & Kingston, 2002).

New Zealand stands out in the international wine market for its commitment to sustainability (Dodds et al., 2013). The SWNZ programme awards certifications to winemakers and grape growers that use 100 percent sustainably certified grapes to make wine in fully certified winemaking facilities (New Zealand Wine, 2016). Under the World Wide Trade Group Agreement, which New Zealand and the United States belong to, it is understood that the SWNZ certification can be displayed on New Zealand wine labels exported into the United States (Kalik, 2011). Furthermore, the NZW labelling guide for exporting outlines that labels must contain information that is “truthful, accurate, [and] specific” (New Zealand Wine, 2013, p. 16). Research has demonstrated that awareness, recogniton, and understanding of an eco-label helps to successfully convey the intended message to consumers (Ginon et al. 2014). Therefore, the adoption of one universal SWNZ eco-label across the New Zealand wine industry should be well received by consumers. Several articles have analysed the different wine certifications across New World wine countries (Ginon et al., 2014; Klohr et al., 2013). Klohr et al. (2013) found that SWNZ encompasses the environmental aspects of sustainability, however, it does not address the social and economic aspects. It has been reported in other literature

that smaller vineyards focus on the environmental aspect of sustainability, whereas it is the larger companies that take into account the social and economic aspects (Szolnoki et al., 2011). This may be due to capability and resources constraints, and the lesser opportunity to achieve the benefits of economies of scale experienced by small vineyards.

Szolnoki (2013) investigated how sustainable winemakers define and understand sustainability within the wine industry. Through the process of interviewing wine producers in different countries, it was revealed that wineries put more emphasis on the environmental aspects of sustainability (Szolnoki, 2013). Some interviewees failed to mention the economic and social aspects of sustainability when asked to define it, and some interviewees could not distinguish between organic, biodynamic, and sustainable farming (Szolnoki, 2013). Overall, the definitions of sustainability were inconsistent and collaboratively encapsulated a broad-spectrum of activities. Through combined analysis of all the interviews it was identified that the main benefits in participating in sustainable wine making were: responsibility, protection of the environment, agro-ecological development, higher product quality, future oriented, and cost efficiencies or profitability (Szolnoki, 2013). The main disadvantages of sustainable practices were: time management, high social cost, lack of guidance, and difficult to communicate. Szolnoki (2013) concluded that definitions not only vary across countries but even across different interviewees. Overall, certified wineries were found to have a better understanding of sustainability and their definitions included social and economic aspects of sustainable practice.

Other studies that explored the motivations of wineries to adopt sustainable practices identified that there are strategic, external, and internal drivers in a firms decision to commit to sustainable practices (Dodds et al., 2013; Santini, Cavicchi, & Casini, 2013). These drivers shape the degree of sustainability that is implemented (Santini et al., 2013). One study aimed to uncover the motivators that drive enagagement in sutainability practices in the New Zealand wine industry (Gabzdylova, Raffensperger, & Castka, 2009). Twenty-four wineries were interviewed and the main motivators uncovered were personal values, preferences and satisfaction with the profession, product quality, and customer demand (Gabzdylova et al., 2009). Furthermore, a study which applied institutional theory in order to investigate the forces driving New Zealand wineries to commit to sustainable production practices found that the pressure was cognitive rather than institutional (Sinha & Akoori, 2010). In addition, the

findings indicated that normative pressures were positively associated to high export orientated firms (Sinha & Akoori, 2010). In a more recent study, Dodds et al. (2013) identified the key drivers for New Zealand wineries to adopt eco-friendly practices to be social responsibility, concern for the state of the environment, and regulation requirements for exporting. These motivations were indentified through a series of interviews and online surveys with producers across the major wine producing regions in New Zealand (Dodds et al., 2013). Similarly, other research suggests that New World wine countries, such as New Zealand and Australia, have adopted sustainable and organic viticulture practices to combat the negative impact of high food miles and large carbon footprint due to exporting distances (Mueller & Remaud, 2010). Mueller and Remaud (2010) believe that the adoption of eco-friendly wine making is attributed to the pressure from trade and distribution intermediaries rather than driven by consumer demand.

Barber (2010) notes that the reasons explaining consumers' attitudes toward and intentions to purchase eco-friendly wines is largely unexplored. The majority of the research on sustainable wine products has measured consumers' attitudes and willingness-to-pay a price premium for this attribute (Berghoef & Dodds, 2011; Sogari, Corbo, Macconi, Menozzi, & Mora, 2015; Vecchio, 2013). Barber et al. (2009) surveyed members of the Society of Wine Educators in the United States and found that concern for the environment positively influenced purchase intentions of eco-friendly wines. Additionally, a study conducted in New Zealand revealed that consumers have a preference for and high intention to purchase sustainably produced wine (Forbes et al., 2009). Participants' believed sustainably produced wine to be of equal or higher quality than conventional wines (Forbes et al., 2009). A limitation of this research method is that it was conducted face-to-face in a public place, therefore, consumers might have been socially conscious of their answers. Furthermore, some responses were recorded at a supermarket where consumers might have been time constrained, and therefore not fully engaged in the survey. The most viable result was that 95 percent of consumers desired eco-labels on sustainably produced wine in order to identify them (Forbes et al., 2009). Despite the limitations of the data collection, this strong consumer response cannot be overlooked as it has direct implications for the topic of this thesis.

Mueller and Remaud (2010) undertook a study to identify whether Australian consumers' interest in organic and eco-friendly wine had changed over time. The results showed that there

was an increase in the preference for organic wine over 2007 to 2009 (Mueller & Remaud, 2010). Environmental claims had positively influenced more consumers from different market segments, however, they had also alienated others who previously cared about the organic attribute in the first year of the study (Mueller & Remaud, 2010). This result is attributed to "green washing" and consumers' lack of trust in eco-certifications (Mueller & Remaud, 2010). They concluded that the potential to sell organic or eco-friendly labelled wine has increased in Australia from 2007 to 2009. In comparison, other researchers suggest consumers avoid organic wine because of the perception that it is of lower quality and does not taste as good as conventional wine (Delmas & Grant, 2014; Fotopoulos et al., 2003; Mann et al., 2012; Olsen et al., 2012; Sirieix & Remaud, 2010; Stolz & Schmid, 2008; Thach & Olsen 2010). This perception held by consumers is conflicting with one of the main reasons wineries adopt eco-friendly production practices. Research has identified that eco-certified wineries believe eco-friendly production methods increase the quality of the wine, especially organically grown grapes (Delmas & Grant, 2014; Szolnoki, 2013).

Wine producers in the United States believe that consumers are not well enough informed to understand the difference between eco-friendly practices in wine production (Szolnoki et al., 2011). Whilst most consumers are familiar with the word "sustainable" and claim to know what it means, very few know how it is integrated into the production process of wine (Zucca et al., 2009). As identified previously, to add to the confusion, the adoption of sustainable practices is not universally applied (Pomarici et al., 2014; Szolnoki, 2013). Szolnoki et al. (2011) posit that whilst there is confusion around eco-friendly practices, consumers' tend to support all "green" practices in winemaking, however, they only trust certified wines. It is suggested that one of strongest barriers against sustainable wines' success in the market, is that consumers already perceive the industry as "natural" and "green"(Sogari et al., 2016). There is evidence to suggest that consumer associate eco-friendly wines as being "healthier" rather than having environmental benefits (Sirieix & Remaud, 2010; Sogari et al., 2016; Stolz & Schmid, 2008). It is ascertained that despite recent media attention about the damaging effects of wine production on the environment, some consumers are not aware of these developments (Barber, 2010; 2012; Berghoef & Dodds, 2011). To add to the confusion, the majority of New Zealand wines that do carry out eco-friendly production practices, such as sustainability (e.g. Peter Yealands) and biodynamic (e.g. Pyramid Valley), do not display evidence of this on the

front of their labelling. Additionally, despite the industry being almost 100 percent sustainably certified, there is evidence to suggest New Zealand consumers are unaware of these developments (Forbes et al., 2009; New Zealand Wine, 2017a).

Overall, there is a lot of ambiguity around the term "sustainability" and confusion around the various eco-friendly production terms in the wine industry, amongst consumers and wine producers themselves (Szolnoki, 2013; Szolnoki et al., 2011). It appears that concerns for the environment do not always translate into purchase behaviour and there are still negative quality perceptions associated with eco-friendly wine production held by consumers (Delmas & Grant, 2014; Fotopoulos et al., 2003; Olsen et al., 2012). Rocchi and Stefani (2006) note that the more psychologically involved a consumer is in their search for quality in a product, the more packaging becomes a significant informational cue. There is an opportunity to inform and educate consumers about the benefits of eco-friendly production practices and to investigate a positive way to communicate this information via wine labels. The next section will discuss eco-certification and eco-labelling, which are processes adopted by wineries in order to participate in and communicate commitment to eco-friendly wine production.

2.2.2. Eco-Certification and Labelling

Eco-certification explains the process wineries go through in order to be formally recognised as a producer of eco-friendly products, which usually involves being authenticated by a third party organisation (Delmas & Grant, 2014). In addition, "eco-labels signal to consumers the environmental attributes of a product. The goal of eco-labels is to provide easily interpretable information and thereby elicit increased demand for products perceived as environmentally favourable" (Delmas & Grant, 2014, p.7). From this definition it is ascertained that eco-labelling explains the process of incorporating eco-certification onto the products' packaging to communicate a commitment to eco-friendly production. It would be assumed that the main reason wineries would become eco-certified is to adopt an eco-label, however this is not always the case. Due to the negative perception that quality is lost during eco-friendly production practices, wineries often omit this information from their labels (Delmas & Grant, 2014).

A study published in 2014 found that only half of eco-certified Californian wineries in a sample of 314 displayed eco-labels (Delmas & Grant, 2014). Furthermore, eco-certified wine without

an eco-label commanded a price premium, with an average price of 40.54 USD. In comparison, the eco-certified wine with an eco-label had an average price of 37.65 USD (Delmas & Grant, 2014). However, both prices were higher than the average price for non-certified wine by 14 percent and six percent, respectively (Delmas & Grant, 2014). This study also revealed that wine quality increases with eco-certification. This result was revealed by analysing the reviews of 13,426 wines from the Wine Spectator magazine (Delmas & Grant, 2014). The main reason that wineries would seek eco-certification, even if they do not intend to display it, was that winemakers' believe organic and environmental practices increase the quality of wine, especially organically grown grapes. In addition, the certifying bodies in California give the wineries access to information on the available best practices and the associated costs and benefits of the production methods (Delmas & Grant, 2014). This explains why eco-certified wine can enjoy a price premium and suggests that the consumers in the study were driven by intrinsic product benefits such as quality.

The purpose of an eco-Label is to reduce information asymmetry, between the producers of eco-friendly wine and the consumers, by providing a credible source of information that the product is environmentally superior to non-eco-labelled products (Delmas, 2010). Information asymmetry can arise because eco-friendly products are credence goods (Delmas, 2010). Eco-friendly products are considered credence goods because consumers cannot ascertain whether it has been environmentally produced as they were not present during the production process; therefore they rely on search attributes to signal this information to them (Delmas, 2010). Wine is considered a hedonic and high involvement product (Hall & Mitchell, 2006). These types of products have traditionally been associated with credence attributes because consumers cannot assess the quality, taste, and experience until after they have consumed it (Delmas & Grant, 2014).

Research has revealed that consumers in the United States believe that organic wine purchase decisions require risk reduction strategies due to the credence attributes of the wine (Olsen et al., 2012). Eco-friendly production methods such as organic, sustainable, and biodynamic are not consistently defined worldwide, therefore, the terms are easily confused and misunderstood (Pomarici et al., 2014; Szolnoki, 2013; Szolnoki et al., 2011; Zucca et al., 2009). Consumers are largely reliant on certification institutions or government certifications in their respective countries (Olsen et al., 2012). To add to the confusion, pressure from consumers

for companies to adopt eco-friendly practices has led to “green washing”. Green washing describes the advertising of environmental claims that are misleading, for example, a company may claim to be sustainable however this claim may only refer to one area of their production (Barber et al., 2009). It has been proposed in the literature that the adoption of national or international certification standards could help to reduce this confusion (Zucca et al., 2009).

Harris (2007) points out that a lack of credible certification not only poses a problem from a consumers’ perspective but also for wine producers wishing to communicate their commitment to sustainable winemaking practices. Harris (2007) suggests that in order to be successful eco-certifications must be clear and easily recognisable, understandably define sustainability, be scientifically sound, and be awarded by a third party in order to be perceived as trustworthy. In 2017, the California Sustainable Winegrowing Alliance launched a “certified sustainable” logo (Wine Institute, 2018). In early 2018 this logo became available to be displayed on the bottles of wine produced by certified wineries who use 85 percent certified grapes from the California region (Wine Institute, 2018). This development in the United States market should increase consumers trust and awareness of sustainable production and certification within the wine industry, which in turn should increase demand for eco-friendly wines. Additionally, professionals within the industry are anticipating demand for sustainable wine will substantially grow over the next decade (Wine Institute, 2018).

Loureiro (2003) claims to be the first researcher to publish a study regarding eco-labelling in the wine industry. She investigated consumers’ perceptions of new Colorado wines and compared the willingness-to-pay for regular and eco-friendly new wines. Loureiro (2003) noted there was a large body of literature regarding behavioural changes towards food labelling and safety information. The results indicated that most consumers’ respond to labelling and many are willing to pay substantial premiums for eco-friendly products (e.g. Nimon & Beghin, 1999). However, nothing has been explored in the context of wine products (Loureiro, 2003). Loureiro (2003) points out that there is still ambiguity around whether eco-labelling or eco-certification programmes are effective tools to motivate consumers’ responses, and she calls for more research on this topic in the context of the wine industry. The results of her study revealed that consumers’ willingness-to-pay a premium for Colorado regular and eco-friendly wines was relatively low (Loureiro, 2003). The cause of this result was due to the perception of low quality towards the wine growing region. Therefore, the main conclusion was that eco-labelling is not

an effective marketing strategy if the consumers' already perceive the wine to be low quality (Loureiro, 2003).

Delmas (2010) conducted a survey to understand how organic and bio-dynamic wine labels are perceived by consumers and the factors that influence their perceptions. Biodynamic farming prohibits synthetic pesticides and fertilisers, similar to organic production; however it goes beyond organic farming to emphasise creating a self-sufficient and healthy ecosystem, much like sustainable production (Delmas, 2010). The results showed that consumers with little awareness and exposure to organic and biodynamic wines held a negative attitude toward the eco-labels. In comparison, consumers' with knowledge of organic farming had a more positive attitude toward biodynamic wine (Delmas, 2010). From these results it is determined that increased awareness and exposure of eco-labels and information to help consumers understand the associated eco-friendly terms, will result in reduced negative perceptions of eco-friendly wine (Delmas, 2010). In turn, a reduction in negative perceptions associated with eco-friendly wine could lower risk reduction strategies in the decision making process.

Sogari et al. (2015) aimed to investigate how consumers' attitudes toward sustainable wine are shaped by environmental values and beliefs about sustainable wine labelling. The study was conducted in Italy involving 495 Italian wine consumers. The results indicated that consumers who are more interested in sustainable wine and protecting the environment are more likely to attribute importance to sustainable wine purchases (Sogari et al., 2015). As previously discussed, Millennials have been identified to care more about the environment than previous generations (Barber, 2012; Thach & Olsen, 2006). Sogari et al. (2015) also identified that consumers who trust sustainable certification and perceive this as a guarantee of high quality standards, in turn have better attitudes toward sustainable wine. SWNZ holds a strong national and international reputation (Szolnoki et al., 2011), therefore, it is determined that consumers should trust this certification. To further enhance the authenticity of wineries commitment to eco-friendly practices, it is suggested they adopt a holistic brand image which catches the attention of Millennials and communicates their value (Orth & Malkewitz, 2008). The next section will discuss the generational differences in relation to wine branding preferences to identify which cues appeal to the different cohorts in order to attract them.

2.2.3. Wine Branding

Wine labels are a wine brands' most important form of marketing; Larson (2012) refers to them as the "marketing billboard" for wine brands. She goes on to point out that, the label design is the only aspect where marketers have the most power to control perceptions. Wine marketers cannot control experiential aspects of the product, such as taste which is subjective and unique. However, they can control the story portrayed by the outside labelling and the tactics employed to catch the attention of prospective customers (Larson, 2012). Wine labels need to gain the trust of the consumers before the contents are tested (Larson, 2012). In addition, previous research suggests that consumers may buy wine solely based on the front label design, logo, or image (Barber & Almanza 2006; Thomas & Pickering, 2003).

Wine labelling communicates all information related to extrinsic cues and characteristics (e.g. vintage, grape variety, country, region) (Kelly, Hyde, & Bruwer, 2015). Barber et al. (2007) emphasised that the label plays a focal role in the translation of brand, quality, and type of wine inside the bottle. They believe that the label needs to communicate the story of the winemaker and the production of the contents (Barber et al., 2007). Mueller and Szolnoki (2010) conducted a study which highlighted the importance that different generations attribute to wine package cues. The results revealed that older frequent wine consumers relied more heavily on brand and packaging, experienced wine consumers relied more on grape variety and whether they had tasted the wine previously, and younger inexperienced consumers considered a mix of cues to influence their choice (Mueller & Szolnoki, 2010). These findings highlight the generational and experience based difference of preferences in this sector.

Generational segmentation is based upon the theory that people develop a set of beliefs, values, attitudes, and expectations as a result of social, economic, and political events which occur in their early development (Cogin, 2012; Johnson & Lopes, 2008). Generational segmentation is prevalent in literature, especially in the fields of management and marketing, however it is not without its criticisms. It is argued that the concept does not take into account cultural, economic, and social issues that differ by country (Inglehart 1997). Furthermore, other practitioners believe that these differences can be explained by stages of life, and that people will continually change throughout their life cycle (Johnson & Lopes 2008; O'Rand & Krecker, 1990). Similarly, others posit these changes occur as people pass through distinct life

phases including employment, marriage, and starting a family (Cogin, 2012; Erikson, 1997). It is believed that the differences can be explained by new challenges and the adoption of different social roles as people move through the different life phases (Cogin, 2012; Erikson, 1997). Supporters for generational segmentation outline that each generation is defined by a world event which happened in a time of personal development, such as coming into adulthood (17 to 23 year olds) which has directly affected their life (Glass, 2007; Schewe & Meredith, 2004). Segmentation has been recognised as a useful tool in marketing research as it identifies the needs of specific consumer segments, which allows marketing campaigns to be better focussed (Thach & Olsen, 2006).

Previous research identified consumer preferences and purchase intentions of wine are affected by different extrinsic cues including: country-of-origin (Gil & Sánchez, 1997; Mann et al., 2012; Magistris, Groot, Gracia, & Albisu, 2011), wine region (Chrea et al., 2011), grape vintage year (Gil & Sánchez, 1997), and price (Gil & Sánchez, 1997; Chrea et al., 2011; Mann et al., 2012). Other cues that have been shown to influence consumers purchase of wine include: flavour (Bruwer, Saliba, & Miller, 2011), previous recommendations (Goodman, 2009; Chrysochou, Krystallis, Mocanu, & Lewis, 2012), and previous consumption habits (Goodman, 2009; Magistris et al., 2011). The main influencers of purchase intentions for Millennials are: brand (Nowak, Thach, & Olsen, 2006), value for money or price (Bernabéu, Díaz, Olivas, & Olemda, 2012; Orth & Malkewitz, 2008; Qenani-Petrela, Wolf, & Zuckerman, 2007; Thach & Olsen, 2006), taste (Qenani-Petrela et al., 2007; Thach & Olsen, 2006), having tasted it previously (Bernabéu et al., 2012; Magistris et al., 2011), and organic production (Bernabéu et al., 2012). The following discussion will analyse the existing research on wine branding specific to the different generational cohorts.

2.2.3.1. Millennials

Millennials appear to respond to wine packaging that is innovative, eye-catching, and attractive (Henley et al., 2011; Thach & Olsen, 2006). These tactics are usually adopted in the packaging of New World wines in order to differentiate themselves from traditional wines (Hollebeek et al., 2007). This could explain the relatively recent popularity of New World wines with this segment (Thach & Olsen, 2006). Millennials' have shown a preference for wine marketing that highlights the experiential aspects of the product, such as: social, fun, relaxed, and casual (Thach & Olsen, 2006). This has triggered the emergence of not only more vibrant and

innovative packaging designs but also brand names. Various New World wine brands have adopted modern brand names to communicate the experiential elements of the product, for example, “7 Deadly Zins” and “Stolen Kiss” (Elliot & Barth, 2012). Whilst other brands have adopted the “critter” name and image trend that proved a huge success for a South Australian family owned winery “Yellow Tail” (Larson, 2012). It is believed that New World suppliers are adopting creative names in order to stand out in a competitive marketplace and attract the younger consumer segment. Elliot and Barth (2012) believe that packaging is very important in influencing consumer choice and enabling a brand to stand out on the shelf in the wine sector. They also believe that non-traditional names and images have the most power to influence the Millennial market (Elliot & Barth, 2012). Larson (2012) conducted a study with Millennials in the United States investigating their preferences and intentions for different wine brand attributes. The findings revealed that they prefer wines that feature creative brands and brightly coloured, graphically interesting labels (Larson, 2012).

Previous research has identified some traits, unique to Millennials, which should be taken into consideration when marketing to them. These traits are: Internet proficient, diversity conscious, positive and practical, believe in fun and responsibility, and environmentally and socially aware (Thach & Olsen, 2006). Although this article is dated, it is believed these traits are unique and were developed as a result of the global societal situation in which Millennials were brought up in (Thach & Olsen, 2006). These traits are still discussed by scholars to better understand the generation (e.g. Garcia et al., 2013; Vecchio, 2013; Wiedmann et al., 2013). Whilst marketers in the wine industry have responded to some of these consumer demands, such as the emergence of selling wine online and the use of novelty and innovative branding and packaging, there are still some gaps that marketers could tap into with regards to these traits. For example, Millennials are very optimistic and believe they can make a difference in the world, therefore they are attracted to companies that hold the same values (Thach & Olsen, 2006). Furthermore, their concern for environmental and social issues is not something to be overlooked. It has been suggested that Millennials not only prefer brands that contain some sort of Corporate Social Responsibility (CSR) initiative, they are also willing to pay more for them (Barber et al., 2009). Barber et al. (2009) believe that Millennials are becoming increasingly environmentally conscious and feel a need to act upon this by incorporating environmental considerations into their lifestyle choices. This has seen a rise in CSR initiatives

which are incorporated into the brand and value chain of organisations (Andersen & Skjoett-Larsen, 2009). For example, a New Zealand organic and fair trade soda brand, Karma Cola, allocates a percentage of every sale to give back to the communities in Sierra Leone where the cola is sourced (Karma Cola, 2017).

Thach and Olsen (2006) aimed to investigate Millennials' attitudes and perceptions regarding wine and wine marketing. The results revealed that the participants' would like to see more people in wine advertising, especially illustrating the experiential elements of consuming wine, such as social and fun (Thach & Olsen, 2006). Furthermore, participants suggested that marketers should broaden their focus to a more diverse audience and advertise more. Many respondents reported having rarely or never seeing wine advertising, yet suggested that beer and spirits advertising is common (Thach & Olsen, 2006). Additionally, a qualitative study conducted in the United States with the purpose of investigating variety seeking behaviours among consumers, revealed that high variety seeking consumers tend to be younger and hold values favouring stimulation and tolerance for risk (Olsen et al., 2015). This finding provides an interesting insight for the context of this research, as previously discussed purchasing eco-friendly wine has been described as risky due the credence attributes of eco-friendly production (Barber & Almanza, 2006). This thesis seeks to incorporate experiential elements into the advertising of wine with the intention to increase stimulation and appeal. Another interesting result was that younger, high variety seeking consumers tend to pay more for wine and purchase wine in more locations (Olsen et al., 2015). The next section will discuss the wine branding preferences of older generational cohorts.

2.2.3.2. Older Generational Cohorts

In comparison to Millennials, the older age cohorts prefer a traditional approach to wine branding. Boudreaux and Palmer (2007) experimented with wine bottle label images, colours, and layouts to investigate which combinations increased purchase intention. The results revealed that the most desirable label image among participants was grape motifs. Additionally, participants demonstrated a preference for traditional label layouts and warm colour palettes reflective of traditional French wines. These results could be due to the sample participants' increased experience and purchasing ability compared with younger cohorts. These findings are consistent with the results of a more recent study by Sherman and Tuten (2011) which aimed to examine consumers' preference for traditional, contemporary, and

novelty label designs. Overall, the attitudes were more positive toward the labels with the traditional visual design and the traditional brand name. Sherman and Tuten (2011) concluded that understanding the target audience is imperative to marketing wine in a saturated market. In addition, the highest performing label design had a traditional image and brand name which highlights the importance of having a consistent brand image that appeals to the target market.

Two surveys conducted in central California in the United States analysed the wine consumption behaviours of consumers in 2005 and 2007, in order to identify age segment differences. The research concluded that Baby Boomers and Generation X preferred wine from Old World wine producing regions and placed more importance on brand names and quality than Millennial consumers (Qenani-Petrela et al., 2007; Wolf, Carpenter, & Qenani-Petrela, 2005). The study implemented in 2007 found that Millennials were more focused on the social outcomes of wine whilst Baby Boomers and Generation X placed a larger importance on the health benefits associated with wine (Qenani-Petrela et al., 2007). Furthermore, a report by Nielsen (2014) outlined the key influences for the different generations were, "purchasing on sale" for Millennials, "variety" for Generation X, and "word of mouth" and "new and different" for Baby Boomers. These findings highlight the importance of market segmentation in order for marketers to direct their campaigns accordingly. The next section provides a discussion of the literature on brand personality which has proven to influence purchase intentions in wine research (Boudreaux & Palmer, 2007).

2.2.3.3. Brand Personality

As outlined in Chapter One (see Section 1.2.), brand personality has been selected as an experimental manipulation. In 1997, Aaker identified there was a need to apply the big five human personality traits, identified in psychology research, to consumer behaviour research and branding. Prior to this, brand personality had been identified in consumer research as a way for consumers to compare their own self, their ideal self, or aspects of the self to a brand (Aaker, 1997; Belk, 1988; Kleine, Kleine, & Kernan, 1993; Malhotra, 1988). Aaker (1997) defined brand personality as "a set of human characteristics associated with a brand", which serve as a symbolic or self-expressive function (p. 347). The dimensions were developed in order to help brands differentiate from competitors (Aaker, 1997). Aaker's (1997) empirical test of the human personality dimensions which include: sincerity, excitement, competence,

sophistication, and ruggedness, established that the dimensions can be applied when discussing brands and have subsequently been widely accepted in the field of marketing.

Three studies in the wine marketing literature have been identified to investigate brand personality in wine marketing. Boudreaux and Palmer (2007) found that brand personality accounted for almost half the variance in purchase intention in the results of their research. They adapted the traditional brand personality dimensions by Aaker (1997) and investigated which dimension was linked to purchase intentions in wine labelling. The results revealed that product labels related to "successful" and "charming", which are facets of the competence and sophistication dimensions, were the most correlated attributes to influence purchase intention (Boudreaux & Palmer, 2007). However, the average age of participants in this study was 38 years old, which may explain the preference toward a traditional brand image. In comparison, an experiment by Elliot and Barth (2012), which focused specifically on Millennials, found that the participants had a preference for label designs that were "spirited" and "up-to-date". These traits belong to the excitement dimension in Aaker's (1997) brand personality scale. In addition, the two facets "spirited" and "up-to-date" were the next most correlated with purchase intention in the study by Boudreaux and Palmer (2007).

Spielmann et al. (2016), conducted a study in France that combined and condensed brand personality, country personality, and product personality scales in order to investigate how the personality attributes effected consumers' perceptions of wine. The conclusion was that there is an opportunity to add to Aaker's (1997) brand personality scale, a social dimension and a philosophical dimension that Millennials seek in wine brands (Spielmann et al., 2016). Spielmann et al. (2016) developed the two new personality dimensions based on the research that Millennial consumers drink wine in social settings, therefore, self-concept theory would be present during the purchase decision. A social personality dimension ties in particularly well with the values and aspects of eco-friendly practices.

Referring back to the research findings by Orth and Malkewitz (2008), using brand cues and personality dimensions that reflect the underlying principles of eco-friendly practices could strengthen the position of organic and sustainable wine. Wine is a multi-faceted product (Hall & Mitchell, 2006), therefore, it is important that wine marketers seek to incorporate all the dimensions that Millennials are seeking in a wine brand, in order to stand out during the purchase decision. Furthermore, several studies highlight the importance of keeping a

consistent brand image which appeals to the target audience (Boudreaux & Palmer, 2007; Orth & Malkewitz, 2008; Sherman & Tuten, 2011). The next section will identify the consumption differences between generational cohorts to better understand Millennials' attraction to wine brands and products.

2.2.4. Generational Consumption Differences

Past research conducted in Europe (Agnoli, Begalli, & Capitello, 2011; Garcia et al., 2012), the United States (Spielmann et al., 2016), and the United Kingdom (Ritchie, 2011) has shown a difference in the wine consumption patterns of Millennials compared with other generations. The different reasons given for this change in consumption behaviour have been an increase in lifestyle and health concerns (Garcia et al., 2013), perceptions and situational factors (Agnoli et al., 2011; Thach & Olsen, 2006; Vecchio, 2013), and an increase in product involvement (Ritchie, 2011; Spielmann et al., 2016). Specifically, wine is considered by Millennials as a drink for special and social occasions (Agnoli et al., 2011; Thach & Olsen, 2006), which has led to self-concept theory being more prominent in the decision making process (Spielmann et al., 2016). Spielmann et al. (2016) suggest this is the reason attributed to brand personality having an influential role in the decision making process, as consumers seek traits in wine brands that represent parts of themselves.

Extant industry analysis indicates that Baby Boomers make up the majority of wine consumers, however, it has been identified that Millennials will be the next biggest market (Barber, Dodd, & Ghiselli, 2008). Research conducted in the United States (Wine Business, 2016), Australia (Teagle, Mueller, & Lockshin, 2010) and New Zealand (Fountain & Lamb, 2011), found that Millennials consume more than Generation X. Lockshin and Corsi (2012) pointed out that most studies rely on intended behaviour and studies that have reviewed the actual consumption behaviour of Millennials indicates that it is concurrent with the behaviour of new wine drinkers of any age. Although, generational analysis may give insight into the consumption habits of different age groups, it is likely that a generations' drinking habits will change as consumers grow older. It has been suggested that wine consumption will rise until middle age and then decline (Batt & Dean, 2000; Garcia et al., 2013). The early stages where consumers are being introduced to wine are critical, as this is when their consumption habits are formed (Bruwer, 2004). This provides an opportunity for wine brands to build a relationship with Millennial consumers early on in their consumption life cycle to establish brand loyalty.

There have been other studies that attempt to investigate behaviours, attitudes, and perceptions relating to wine which has shown significant differences between generations; however these differences vary across each country and even within the same the country (Garcia et al., 2013). Other research has attempted to segment and profile wine consumers by lifestyle (Bruwer, Li, & Reid, 2002; Bruwer & Li, 2007), consumption (Wine Business, 2016), geographic location (Goodman, 2009), and gender (Jones, 2006). Garcia et al. (2013) point out that it is important to understand the motivations of each generation in order to communicate with them in a way that reflects their desires.

For Millennials, wine is a lifestyle and social product and they enjoy the different elements involved in consuming it, for example, pairing it with matching food and drinking it in the company of others (Agnoli et al., 2011; Ritchie, 2011; Teagle et al., 2010; Thach & Olsen, 2006). Although some studies indicated Millennials drink less than the older age cohorts, these claims refer to their consumption behaviour to drink less frequently (Garcia et al., 2013). The majority of research suggests they are less inclined to consume wine every day with dinner compared to generations before them, and as a result, the market for table wine has diminished in some countries (Garcia et al., 2013). However, Millennials still consume a large share of wine and are willing to pay higher prices than the generations before them (Orth & Malkewitz, 2008; Teagle et al., 2010). The large spending power of this generation as a whole makes them very attractive (Magistris et al., 2011). The motivations and consumption differences discussed in this section form the basis to focus on the Millennial generation for the context of this research. This following section contains a summary of literature outlining the main research gaps which inform the research objectives.

2.3. Research Gap and Objectives

The main findings of the literature review inform the methodology and context for this research. There is still a lot of ambiguity regarding consumers' preference for eco-friendly wines (Delmas & Grant, 2014; Olsen et al., 2012; Remaud et al., 2008; Stolz & Schmid, 2008; Szolnoki, et al., 2011; Zucca et al.,2009). This creates a problem for wineries who employ eco-friendly production processes as they are unaware of how to communicate this information and how it will affect the success of their brand. In some product categories, environmental and social responsibility serves as a competitive advantage; however confounding results in

wine research show that there is room to explore this issue further. There is research to suggest that a reputable and well-known eco-label could improve consumers' acceptance and trust (Harris, 2007; Sogari et al., 2015). Moreover, a strong brand image demonstrating the hedonic and experiential attributes of the product could off-set the stigma of low quality with Millennial consumers (Boudreaux & Palmer, 2007; Orth & Malkewitz, 2008; Sherman & Tuten, 2011; Thach & Olsen, 2006).

These issues directly affect the New Zealand wine industry as it is 98 percent sustainably certified and all wine for export is sustainably certified (New Zealand Wine, 2016; 2017a; 2017b). Overall, there is lack of research concerning New Zealand wine branding, especially with a specific focus on the sustainable attributes. In addition, no research has been found which investigates overseas consumers' perceptions and attitudes toward New Zealand wine. Furthermore, this research aims to provide valuable insight to the industry by conducting the experiment in a specific market. Millennial consumers from the United States have been chosen as the sample for this research due to their growing consumer presence and purchasing power in the wine market (Barber et al., 2008; Garcia et al., 2013; Magistris et al., 2011; Wiedmann et al., 2014). Millennials' have demonstrated a concern for the environment, a tendency to be more variety seeking in their consumption behaviours, and have been identified to response to innovative wine brands (Olsen et al., 2015; Thach & Olsen, 2006). Therefore, it is ascertained that the elements selected for this study will elicit a strong response within this segment. Additionally, the United States is New Zealand's most valuable wine export market and the most valuable wine market worldwide (Euromonitor, 2017a; Szegota, 2017). Therefore, the results of this study will have direct practical implications for New Zealand wineries seeking to export wine to the United States.

This research will aim to identify how communicating commitment to eco-friendly practices influences consumers' intentions, perceptions, and attitudes by employing two different eco-friendly attributes, a sustainable product description and a sustainable eco-label. In addition, it will investigate whether using an experiential brand image influences Millennials' responses by employing the two most popular brand personality dimensions with this segment: social and excitement. The next section outlines the research hypotheses.

2.4. Research Hypotheses

2.4.1. Hypothesis One: Effect of Brand Personality, Product Description, and Eco-Label on Purchase Intention

Purchase intention has been widely adopted in wine marketing research, with several studies investigated the willingness-to-pay (Brugarolas Molla-Bauza et al., 2005; Berghoef & Dodds, 2011; Barber et al., 2009; Remaud et al., 2008; Vecchio, 2013) and intention to pay a premium price (Barber, 2010; Delmas & Grant, 2014) for eco-friendly wines. Although it must be noted, most of this research focuses on purchase intentions for organic wine. Research investigating sustainable wine and the effect on consumers' purchase intentions and responses is limited. Additionally, these findings often lead to conflicting results. Other research in wine branding has indicated that brand personality has significantly influenced purchase intention (Boudreaux & Palmer, 2007).

Purchase intention is frequently used in the field of marketing research to ascertain consumers' behavioural intentions towards brands, products, and services. Purchase intention has been described as "an individual's conscious plan to make an effort to purchase a brand/product" (Spears & Singh, 2004, p.56). This study seeks to adopt a specific approach to investigate how eco-friendly product cues influence purchase intentions compared with no eco-friendly attributes. In addition, it seeks to identify which brand personality dimension increases purchase intention.

H_1 *Brand Personality, Product Description, and Eco-Label will have a significant effect on Purchase Intention.*

2.4.2. Hypothesis Two: Effect of Brand Personality, Product Description, and Eco-Label on Perception of Quality.

As discussed in the literature, there are ambiguous results measuring consumers' perceived quality of eco-friendly wines. Whilst improving the quality of wine is one of the main motivating factors for wine producers who seek eco-certification, most research indicates consumers associate eco-friendly wines as lower in quality (Delmas & Grant, 2014).

Quality perception has been employed by practitioners and academics in the field of marketing to measure consumers' judgement (Ophuis & Van Trijp, 1995). Perceived quality is a

consumers' evaluation of the quality or superiority of a product or brand relative to alternatives (Ophuis & Van Trijp, 1995). Ophuis and Van Trijp (1995) posit that perceived quality is effected by contextual elements of perception, product, person, and place. More elaborately, the *perception* of a product may be formed as an evaluation of product characteristics, and the characteristics evaluated may differ by *product* category. A *persons*' judgement will differ depending on their perceptual abilities, personal preference, and experience level. Overall, the quality will also be assessed in terms of the intended purpose for the product or the *place* in which it will be consumed (Ophuis & Van Trijp, 1995).

As Figure 1.1 suggests (see Section 1.2.), the consumer decision making process when purchasing wine is complex and various external and internal cues influence this process (Barber & Almanza, 2006). Furthermore, it was identified in the literature review that different intrinsic and extrinsic product cues play a role in the consumer decision making process (see Section 2.2.3.). Steenkamp (1990) proposed a conceptual model which outlines that intrinsic and extrinsic quality cue beliefs, and experience and credence quality attributes beliefs, influence perceived quality. Therefore, to evaluate the participants' response to the different intrinsic and extrinsic wine label attributes, perception of quality will be measured.

H_2 *Brand Personality, Product Description, and Eco-Label will have a significant effect on Perception of Quality.*

2.4.3. Hypothesis Three: Effect of Brand Personality, Product Description, and Eco-Label on Attitudes toward the Brand

The literature outlined that consumers are becoming increasing environmentally conscious and seek to consume lifestyle products responsibly (Thach & Olsen, 2006). Furthermore, consumers have been found to favour brands with a CSR initiative (Barber et al., 2009). Therefore, it is determined that eco-friendly product attributes should have a positive effect on attitudes toward the brand.

Mitchell and Olson (1981) defined attitudes toward the brand as an "individuals' internal evaluation of an object" (p. 318). This definition encompasses the core components of the principle that forming an attitude is based on a consumers' response to an object that contains some evaluation (Giner-Sorolla, 1999; Spears & Singh, 2004). Attitude scales are usually multi-

dimensional to encompass a spectrum of factors that may influence a consumers' attitude positively or negatively (Singh & Spears, 2004).

Attitudes toward the brand and purchase intention are commonly employed in marketing research to predict consumer behaviour (Spears & Singh, 2004). Some scholars combine the two variables as a single construct (Spears & Singh, 2004), however, for this research the two constructs will be employed separately. Although it is assumed the two constructs would be correlated, it is possible for consumers' to develop a positive attitudes toward a brand even if they do not intend to purchase the products offered by the brand. Furthermore, in Chapter One, the attitude-behaviour gap was outlined in relation to eco-friendly products (see Section 1.2.). This study will aim to identify which variable, or combination of variables, will positively influence consumers' attitudes toward the brand.

H_3 *Brand Personality, Product Description, and Eco-Label will have a significant effect on Attitudes toward the Brand.*

2.5. Covariates

Various constructs were identified in the literature to influence consumers' intentions, perceptions, and attitudes toward wine. The covariates will be controlled to ensure the actual effect size of independent variables is established. The confounding effects of five covariates are accounted for when analysing the hypothesised relationships. The constructs potential impacts on the dependent variables are detailed below.

2.5.1. Product Involvement

Wine is considered as a high involvement, multi-faceted product (Hall & Mitchell, 2006). Consumers have identified that the decision making process is complex and involves a certain degree of risk (Barber & Almanza, 2006; Olsen et al., 2015). Product involvement refers to "a persons' perceived relevance of the object based on inherent needs, values, and interests" (Zaichkowsky, 1985, p.342). Increase in product involvement has been identified as one of the reasons to explain a change in the consumption behaviour of Millennial consumers (Ritchie, 2011; Spielmann et al., 2016). Additionally, the repositioning of wine as a social drink with Millennial consumers has led to self-concept theory being associated with the purchase decision (Spielmann et al., 2016). The reason attributed to this is Millennials are more involved in the purchase situation and place more importance on the wine brands and their symbolic

reflection due the context of public consumption. As discussed, perceived quality of a product is influenced by contextual elements of perception, product, person, and place (Ophuis & Van Trijp, 1995). Therefore, product involvement is expected to have an effect on consumers' intentions, perceptions, and attitudes toward the brand.

2.5.2. Advertisement Comprehension

As identified in extant research, there is ambiguity around the term sustainability, especially in the context of the wine industry (Szolnoki, 2013; Szolnoki et al., 2011). The main issue is the lack of awareness about how eco-friendly production methods are implemented in the wine making process (Szolnoki et al., 2011; Zucca et al., 2009). Additionally, the eco-friendly terms are not defined consistently worldwide which adds to the misunderstanding and confusion (Pomarici et al., 2014; Szolnoki, 2013; Szolnoki et al., 2011; Zucca et al., 2009). Awareness and understanding of eco-friendly terms, in a wine context, has been proven to directly affect consumers' attitudes and perceptions of eco-friendly wine labels (Delmas, 2010). Although not a primary focus of this research, it was determined that measuring consumers' understanding of the terms in the advertisement would allow for these effects to be controlled.

2.5.3. Environmentalism

Concern for the environment has been identified as a predictor of purchase intentions for eco-friendly wine (Barber et al., 2009; Mueller & Remaud, 2010; Sogari et al., 2015). Additionally, Millennials exhibit an increase in concern for the environment and prefer brands associated with CSR initiatives (Barber et al., 2009; Thach & Olsen, 2006). It is ascertained that this concern for the environment will impact on consumers' intentions, perceptions, and attitudes toward sustainable wine. Therefore, a construct measuring consumers' level of environmental concern will be employed to control for confounding effects.

2.5.4. Preference for Local Products

Industry analysis has indicated that the vast majority of wine consumption in the United States is domestically produced wine from the Californian wine region (Euromonitor, 2017b). The Californian wine industry has a prevailing reputation of commitment to eco-friendly production practices (Ross & Golino, 2008; Zucca et al., 2009). Research suggests that preference for purchasing local products appeals to consumers who exhibit a concern for the environment and are looking for fresh and high quality products (Brown, 2003). Furthermore, consumers' in

the United States were found to consider the distance a product has travelled in their purchase decisions (Brown, 2003). Therefore, it is possible consumers' will take into consideration that the wine is from New Zealand when evaluating the advertisements. This would suggest that preference for local products will affect intentions and attitudes towards eco-friendly wine.

2.5.5. Country-of-Origin Product Image

Prevalent in international business and marketing literature is the concept of country-of-origin and how this reflects on to products and services produced in the respective country. Country-of-origin is an informational cue which designates the country in which the product has been produced (Bilkey & Nes, 1982). Country-of-origin has proven to be an indicator of quality in both empirical observations and experimental research (Bilkey & Nes, 1982). As identified in existing literature, New Zealand's country image has been identified to reflect on to products and services (Clemens & Babcock, 2004; Morgan et al., 2002; Morrish & Lee, 2011; Skaggs et al., 1996). Furthermore, appellation of origin has proven to be a significant indicator of quality and influence purchase intentions in previous wine research (Chrea et al., 2011; Gil & Sánchez, 1997; Johnson & Bruwer, 2014; Mann et al., 2012; Magistris et al., 2011). Therefore, this construct will be employed and controlled for in this research.

2.6. Chapter Summary

This chapter provided a basis for the context of this research and the theoretical foundations for the key areas of interest to this research. The discussion on sustainable wine highlighted its importance in the New Zealand wine industry and the confusion surrounding the term in a marketing context. The following section defined the process of eco-certification and eco-labelling. The main issues facing sustainable wine brands, in a marketing context, is the best way to communicate commitment to sustainability to consumers. Furthermore, it is unknown whether a strong brand image could overcome the stigma of low quality associated with eco-friendly wine. A discussion of the research regarding wine branding revealed that Millennial consumers' prefer the experiential and social marketing of wine products. Understanding how consumers' react to different product attributes in wine marketing will facilitate resolving these issues. The research gaps identified inform the research objectives, hypotheses, and covariates selected for this thesis. This thesis will investigate the effects of Brand Personality, Product Description, and Eco-Label on participants Purchase Intentions, Perceptions of Quality,

and Attitudes toward the Brand. The following section will outline the methodology in order to implement this research and test the hypotheses.

3. Methodology

3.1. Introduction

This chapter presents the research methodology adopted to test the hypothesised relationships outlined in Chapter Two (see Section 2.4.). It begins with an overview of the research and experimental design. Next, the stimuli development process is discussed in detail including initial pre-tests, which informed the design of the final advertisements for the experimental conditions. The variable measurement scales are presented and an outline of the online experiment is proposed. Details of the main pre-test are provided and the results are presented along with amendments to the final experiment. Lastly, the final experiment procedure details are provided followed by a chapter summary.

3.2. Research Design

Wine is considered a credence good, therefore the decision making process is complex (Barber & Almanza, 2006). Consumers often become overwhelmed at the vast number of choices available to them (Constellation Wine US, 2005). Barber and Almanza (2006) identified that consumers use their knowledge, experience, and external sources of information to aid in their decision making process when purchasing wine (refer to Figure 1.1.). They identified wine label design to be one of the focal elements that influences consumers' decision making. Wine labels are important because marketers have full control of the design in order to differentiate the brand from competitors and shape consumers' perceptions (Barber & Almanza, 2006; Larson, 2012). Furthermore, a holistic brand image which is consistent and appeals to the target market is fundamental to elicit desired responses (Boudreaux & Palmer, 2007; Orth & Malwitz, 2008).

From the literature review it was determined that this research would aim to test a series of different wine label manipulations which are Brand Personality, Product Description, and Eco-Label. Print advertisements were found to be an appropriate vehicle for the different label manipulations (Lee, 2000). An experimental research design will be employed to test the different combinations of manipulations in order to identify which variable, or combination of variables, will increase consumers' Purchase Intention, Perception of Quality, and Attitudes

toward the Brand. The decision to employ an experimental research design is consistent with other studies that have investigated consumers' preference for different label and brand attributes (e.g. Boudreaux & Palmer, 2007; Sherman & Tuten, 2011).

3.3. Experiment Development

This study will employ a 3 x 2 x 2 between subjects, full factorial experimental design. This research seeks to identify consumers' preference for wine label designs which will have different variable manipulations (Brand Personality, Product Description, and Eco-Label; see Section 3.4.3.). The impact of the manipulations will be measured by the outcome variables (Purchase Intention, Perception of Quality, and Attitudes toward the Brand). An experimental design will allow for the combination of independent variables with the most influence on the dependent variables to be identified.

		Brand Personality		
Product Description	**Eco-Label**	None	Social	Excitement
Sustainable	Sustainable	Condition 1	Condition 5	Condition 9
None	Sustainable	Condition 2	Condition 6	Condition 10
Sustainable	None	Condition 3	Condition 7	Condition 11
None	None	Condition 4	Condition 8	Condition 12

Table 3.1.: Experimental Manipulations

3.4. Stimuli Development

3.4.1. Consideration for Developing Print Advertisements

Print advertisements were chosen as the vehicle for the experimental manipulations in this study because they are reader paced and easy to manipulate (Lee, 2000). Although the focus of the research is wine label cues, print advertisements are the best vehicle to manipulate the variables of interest. The determining factor was that print advertisements usually contain large images which convey information about a brand and the brand personality (Edell & Staelin, 1983). Furthermore, print advertisements with interactive images are more likely to be recalled (Kisielius, 1982), which is important for this study as the advertisements will not be present throughout the entire survey. Imagery in print advertising has also led to more favourable brand attitudes (Mitchell & Olson, 1981; Rossiter & Percy, 1978). The results from

the study should be transferrable to different types of wine promotional material including print advertisements and wine label designs. New Zealand wine brand advertisements can be seen in the United States in wine magazines such as *Wine Spectator*, *Gourmet Traveller,* and *Decanter*. To make the advertisements as realistic as possible these magazines were reviewed to inform the advertisement design for this thesis, this method was observed in similar experimental research. An A4 advertisement was created to replicate a one page magazine advertisement.

3.4.2. Developing the Advertisements

To create the different conditions outlined in Table 3.1., twelve different wine advertisements were developed. To ensure the advertisements were as realistic as possible, existing wine magazine advertisements were examined; common elements were identified and used to inform the development process. Key informational elements were: brand name, appellation of origin, tasting notes, production method, history of the winery or family, and medals and awards. Key visual cues were: a wine bottle, a wine glass filled with wine, photographs in the background of family, food, or a vineyard. The existing advertisements that informed the layout and style of the advertisements developed for this study can be found in Appendix 7.1.1.

3.4.3. Determining Manipulations

As discussed in the literature review, there are conflicting results regarding consumer perceptions of eco-certified and eco-labelled wine (see Section 2.2.2.). This directly affects the New Zealand wine industry as it is 98 percent sustainably certified and 100 percent of wine for export is sustainably certified (New Zealand Wine, 2016; 2017a). Eco-certified wine brands in New Zealand display the SWNZ certification discretely on the back of the bottle, despite the fact that New Zealand consumers have displayed a preference for eco-labels (Forbes et al., 2009). Therefore, two different methods of communicating eco-certification were employed, first by a product description: “This wine is produced 100% sustainably”, and second by incorporating the SWNZ logo into an eco-label. The SWNZ logo was employed for this research as SWNZ has an established reputation in the wine industry (Szolnoki et al., 2011). Past research has emphasised the importance of third party certification in order to be perceived as credible (Harris, 2007). These two manipulations will be analysed together, separately, and also compared to advertisements that do not contain either attribute, in order to identify which manipulation elicits positive responses.

As identified in the literature, a consistent brand image that reflects all of the elements that the target market are seeking the product to satisfy should lead to positive intentions, perceptions, and attitudes. (Boudreaux & Palmer, 2007; Orth & Malwitz, 2008; Sherman & Tuten, 2011). With this consideration in mind, brand personality was employed as a manipulation for this research. Millennials' consider wine a high involvement product and have shown a preference for experiential and social attributes in wine brands (Hall & Mitchell, 2006; Spielmann et al., 2016; Thach & Olsen, 2006); these findings suggest self-concept theory is present in decision making process. Brand personality has been defined as a set of human traits applied to a brand in order to fulfil symbolic and self-expressive needs (Aaker, 1997). Therefore, it was determined that brand personality will significantly influence consumers' intentions, perceptions, and attitudes. Excitement brand personality was employed as manipulation because it was identified in previous wine research to be the most popular brand personality with Millennials (Elliot & Barth, 2012). Additionally, in a recent study on wine branding it was identified that Millennials seek wine brands to fulfil the experiential elements of drinking wine in a social setting (Spielmann et al., 2016). Spielmann et al. (2016) proposed a new brand personality "social" and developed five facets to reflect this dimension. This newly proposed brand personality was employed for this research. These two brand personality dimensions were captured through images in the advertisements. The image selection process is described in the following section.

3.4.4. Consideration for Image Selection

Research into wine advertising in the United States revealed some considerations and regulations which informed the image selection process. The main restrictions of concern to this research were that the model/s featured in wine advertising had to be over the age of 25 years old, and be engaged in activities that are associated with the use of wine in a responsible manner (Wine Institute, 2011). Additionally, wine advertising cannot be symbolically associated to increase personal performance, social attainment, achievement, success, wealth, or rites of passage into adulthood (Wine Institute, 2011). These limitations were taken into consideration during the image search and selection procedure.

3.4.5. Pre-study: Image Selection

A selection of images were chosen by the researcher to express the intended brand personality dimensions. A short pre-test was then conducted with a panel of eight marketing and

management postgraduate students. The purpose of the study was to reduce the selection of ten images to two images, one to represent each personality dimension. The images were selected by searching through various stock image websites (see Appendix 7.1.2.). The image that was selected most frequently by respondents to represent each personality dimension would be employed for the main study. If there were two images that were selected by an equal number of participants, the means were calculated and compared. This pre-study procedure was informed by similar research (e.g. White, 2015; Worsley, 2015).

Each respondent was initially briefed on the concept of brand personality with the definition provided by Aaker (1997): "a set of human characteristics associated with a brand" (p. 347). They were asked to read the facets of each dimension to ensure they understood the task and terms, and definitions were provided where necessary. Respondents were shown the first set of five images and ask to determine which image they thought most strongly represented the respective brand personality dimension. Next, they were asked to indicate their level of agreement that the corresponding five personality facets described the image they had selected with a Likert scale anchored from 1 = "Strongly disagree" to 7 = "Strongly agree". The results were calculated to identify which image was most frequently selected to represent the brand personality. Subsequently, the mean scores for each facet were calculated to identify which image was most highly rated on each facet. The procedure was then repeated with another set of five images representative of the alternate personality dimension.

3.4.5.1. Social Image Results

Five of the eight participants' selected Image 1 to best represent the social brand personality. Image 2, 3, and 4 were selected once. The means for Image 1 were as follows: Merry = 6.40, Laid Back = 5.40, Original = 5.60, Open = 6.80, and Convivial = 7.00. Overall the mean for Image 1 was 6.24 = "Agree".

3.4.5.2. Excitement Image Results

Image 1 and Image 2 were each selected by three participants to be most representative of the excitement brand personality; whilst Image 3 was selected by two participants. The means of each facet were calculated for Image 1 and 2 to determine which one was a better representation of the excitement brand personality dimension. For Image 1 the mean scores for each facet were: Daring = 3.70, Spirited = 6.70, Exciting = 6.70, Imaginative = 5.70, and Up-to-date = 6.70. For Image 2 the mean scores were: Daring = 5.00, Spirited = 7.00, Exciting =

7.00, Imaginative = 5.30, and Up-to-date = 5.80. Overall the mean score, with all facets combined, for Image 1 was 5.87 = “Agree” and mean score for Image 2 was 6.03 = “Agree”.

The results of the pre-test were shared with experts in the marketing field and discussed in terms of context of the experiment. It was determined that Image 1, that was selected to represent the social personality dimension, could confound the results as the photo was taken outside in a vineyard. The image had a natural background with hills and greenery therefore, an advertisement containing natural elements might be considered as more sustainable or eco-friendly. To reduce confounding the results, it was determined that the images for the manipulations should be taken from the same image series and be kept as consistent as possible (see Appendix 7.1.2.3.).

Both Image 1 and Image 2 from the excitement dimension pre-test were part of a series of images; Image 1 came from a series of 72 images and Image 2 came from a series of six images. Using the results from the first pre-test, a visually similar image was selected from both of the series to be representative of the social personality dimension.

Another pre-test was carried out to determine which pair of images, from the same image series, represented the personality dimensions the most. A panel of eight postgraduate students were asked to choose one of the two pairs of images from each series that they thought best represented the personality dimensions. They were then asked to indicate their agreement with the corresponding facets for each dimension. Six out of eight students selected Pair 2. The means for the images in Pair 2 were: Social = 5.90 “Agree” and Excitement = 5.74 “Agree”.

Brand Personality Dimensions	*Coding*	*Likert Items (Strongly disagree/Strongly agree)*
Social	BP2_1	The brand in the advertisement is merry
	BP2_2	The brand in the advertisement is laid back
	BP2_3	The brand in the advertisement is original
	BP2_4	The brand in the advertisement is open
	BP2_5	The brand in the advertisement is convivial
Excitement	BP3_1	The brand in the advertisement is daring
	BP3_2	The brand in the advertisement is exciting
	BP3_3	The brand in the advertisement is spirited
	BP3_4	The brand in the advertisement is imaginative
	BP3_5	The brand in the advertisement is up-to-date

Table 3.2.: Likert Scale Items for Brand Personality Dimensions for the Pre-testing Procedure

3.4.6. Final Stimuli Development

3.4.6.1. Sustainable Product Description

The product description for the sustainably certified wine was: "This wine is produced 100% sustainably". This statement was developed based on the claim that "New Zealand Winegrowers' Sustainability Policy requires all wine to be made from 100% certified grapes in fully certified winemaking facilities" (New Zealand Wine, 2017c). Half of the advertisements, or six advertisements, in the series would contain the sustainable product description.

3.4.6.2. Sustainable Eco-Label

Based on the findings from extant research which emphasised the importance of having an easily recognisable and trustworthy eco-certification to be successful (Harris, 2007), it was determined this study would employ the original SWNZ Logo. Similar to the layout of other certifications, the logo was placed inside a green circle to form an eco-label. The eco-label was enlarged and presented on each of the wine bottles in the advertisement, similar to the placement of medals and awards observed in the wine advertisements reviewed (see Appendix 7.1.1.). As before, half of the advertisements in the study would contain an eco-label.

3.4.6.3. Wine Bottles

Two wine bottles were selected for the advertisement, one red wine bottle and one white wine bottle. This decision was made to avoid the confounding effects of participants' preference for white or red wine, which could affect their evaluation of the advertisement. This tactic was employed to ensure the results are based on the brand rather than the type of wine. Furthermore, this layout was informed by various wine advertisements in the wine magazines (see Appendix 7.1.1.).

3.4.6.4. Brand Name

To reduce the effects of pre-conceptions of using an existing brand, a new brand name was developed (Lee, 2000). Research into New Zealand wine brands was conducted and eventually a fictitious wine brand name "Estate" was selected. It was determined that this was a relatively accepted brand name within wine industry, therefore it would not draw attention or initiate extended thought from participants. It is also a neutral brand name in relation to the other manipulations, so as not to confound the results.

3.4.6.5. Font

Bodoni font was selected for the advertisements. This font is similar to the fonts of other wine brands. Font has proven to be an important aspect in branding (Doyle & Bottomley, 2004), therefore a relatively typical font was selected to avoid distracting the attention of the participants. Likewise, the same font was used for each condition.

3.4.6.6. Colours

A neutral colour palette was employed as colour has been found to influence purchase intention in this context (Boudreaux & Palmer, 2007). This decision was consistent with the styles identified in the wine magazine advertisements. As before, the same colour palette was employed for all advertisements.

3.4.6.7. Country of Origin and Geographic Indication

It is a requirement for all imported wines in the United States to bear a country-of-origin statement (New Zealand Wine, 2013). "New Zealand Wine" appeared three times in the advertisement, the statements were placed under the brand name in smaller font consistent with other well-known New Zealand wine brands (e.g. Oyster Bay). This form of statement has been approved by the United States Alcohol and Tobacco Tax and Trade Bureau (New Zealand

Wine, 2013). Furthermore, the geographic indication "Product of New Zealand" was placed at the bottom of the advertisement in the preferred format indicated by the United States Alcohol and Tobacco Tax and Trade Bureau (New Zealand Wine, 2013). Although this statement would not be required in a magazine advertisement, it would be required for a wine label.

A copy of the twelve advertisement conditions can be found in the Appendices (see Appendix 7.2.).

3.5. Survey Development

3.5.1. Measures for Independent Variables

3.5.1.1. Brand Personality

Aaker's (1997) brand personality dimensions were adopted from the big five human personality dimensions prevalent in psychology research. Since then, they have been widely adopted in the marketing field of research. The excitement brand personality dimension was identified as the most appealing of the five dimensions to Millennials (Elliot & Barth, 2012). The four facets which make up the excitement dimension developed by Aaker (1997) were employed as a manipulation check. In addition, a fifth item "exciting" was added to the manipulation check. "Exciting" is one of the three traits under the "daring" facet (Aaker, 1997).

The social brand personality dimension was developed in a recent study by Spielmann et al. (2016). It was proposed as an additional dimension to extend Aaker's (1997) brand personality scale. The five facets of this dimension were drawn from the original study and utilised as a manipulation check (Spielmann et al., 2016). One facet, BP2_5 was changed from "convivial" to the synonym "sociable". This decision was made due the confusion of the original term during the pre-study procedure. Participants often asked for the definition of the word, consequently a more familiar adjective was selected.

These two brand personality dimensions were employed as they were identified as the most appealing brand personality dimensions to Millennials' in several past studies in wine research (e.g. Elliot & Barth, 2012; Spielmann et al., 2016). Each brand personality dimension consisted of five items with a seven-point Likert scale style response. Participants were asked to select their level of disagreement/agreement as to whether they thought the items described the brand featured in the advertisement.

Factor	*Coding*	*Likert Items (Strongly disagree/Strongly agree)*
Social Brand Personality	BP2_1	The brand in the advertisement is merry
	BP2_2	The brand in the advertisement is laid back
	BP2_3	The brand in the advertisement is original
	BP2_4	The brand in the advertisement is open
	BP2_5	The brand in the advertisement is sociable
Excitement Brand Personality	BP3_1	The brand in the advertisement is daring
	BP3_2	The brand in the advertisement is exciting
	BP3_3	The brand in the advertisement is spirited
	BP3_4	The brand in the advertisement is imaginative
	BP3_5	The brand in the advertisement is up-to-date

Table 3.3.: Likert Scale Items for Brand Personality Manipulations for the Main Study

3.5.1.2. Product Description

During the development of the following two manipulation checks various scales were considered. These included: Involvement with the Product Description (Johar, 1995), Attitude toward the Advertisement (Comprehension) (Smith, Chen, & Yang, 2008), Attitude toward the Organisation (Social Responsibility) (Shanahan & Hopkins, 2007), Corporate Social Responsibility (General) (Wagner, Lutz, & Weitz, 2009), Attitude toward the Advertisement (Relevance) (Lawrence, Fournier, & Brunel, 2013), and Attitude toward the Advertisement (Truthfulness) (Feldman, Bearden, & Hardesty, 2006). However, it was very important that the scales were specific in order to distinguish between the two manipulated conditions (Sustainable Product Description and Sustainable Eco-Label) which were conveying a similar message via different manipulations. Therefore, the scales outlined above were drawn upon to develop the following measurement scale for Product Description. Participants were asked to select their level of disagreement/agreement for each statement on a Likert scale anchored from 1 = “Strongly disagree” to 7 = “Strongly agree”.

Factor	*Coding*	*Likert Items (Strongly disagree/Strongly agree)*
Sustainable Product Description	PD_1	The product description suggests this product is sustainable
	PD_2	The product description suggests the product was produced sustainably
	PD_3	The product description suggests this brand produces sustainable wine

Table 3.4.: Likert Scale Items for Sustainable Product Description Manipulation

3.5.1.3. Eco-Label

Aforementioned, the scales outlined in previous section were drawn upon to develop the following scale which will be employed as a manipulation check for Eco-Label (see Section 3.5.1.2.). It was very important there was variation between two the scales. Furthermore, studies which previously explored eco-labels did not identify which scale was employed as a manipulation check. Participants were presented with the following statements and asked to indicated their response on a Likert scale anchored from 1 = "Strongly disagree" to 7 = "Strongly agree".

Factor	*Coding*	*Likert Items (Strongly disagree/Strongly Agree)*
Sustainable Eco-Label	ECO_1	The product in the advertisement has a sustainable certification
	ECO_2	The product in advertisement has an eco-label certification
	ECO_3	The eco-label in the advertisement suggest the product has been sustainably certified

Table 3.5.: Likert Scale Items for Sustainable Eco-Label Manipulation

3.5.2. Measures for Dependent Variables

3.5.2.1. Purchase Intention

Purchase Intention is a commonly used outcome variable in marketing research. Studies in wine research have typically measured willingness-to-pay (Mollá-Bauzá et al., 2005; Remaud et al., 2008), or purchase intention (Barber et al., 2009; Chrea et al., 2011; Gil & Sanchez, 1997; Magistris et al., 2011; Mann et al., 2012) to measure consumers' preference for and

behavioural intentions toward different wines. There are various purchase intention scales and three were considered before selecting the scale constructed by Lepkowska-White, Brashear, and Weinberger (2003). The scale "Purchase Intention towards the Product in the Advertisement" was selected as print advertisements were employed as the vehicles for the manipulations; therefore the scale reflects the context of the research and no adaptation was necessary. The reliability coefficient of the scale was reported as .90 (Lepowska-White et al., 2003; Bruner, 2009). Participants were asked to select their response on a Likert scale from 1 = "Strongly disagree" to 7 = "Strongly agree", to the following statements presented in Table 3.6.

Factor	*Coding*	*Likert Items (Strongly disagree/Strongly agree)*
Purchase Intention	PI_1	If I were looking for this type of product, my likelihood of purchasing the product in the advertisement would be high
	PI_2	If I were to buy this type of product, the probability that I would consider buying the product in the advertisement would be high
	PI_3	If I had to buy this type of product, my willingness to buy the product in the advertisement would be high

Table 3.6.: Likert Scale Items for Purchase Intention

3.5.2.2. Perception of Quality

Perception of Quality was employed as a dependent variable due to the conflicting results regarding consumers' perceived quality of eco-friendly wine (e.g. Delmas & Grant, 2014; Forbes et al., 2009). The scale to measure participants' perceived quality was composed of items from three different scales. Three items were employed from the "Quality of the Brand" scale developed by Keller and Aaker (1992), designed to measure participants' evaluation of a brand's quality. An additional item was added from the "Quality of the Product" scale developed by Sprott and Shimp (2004) to measure consumers' perceived quality of a product or brand. A final item was added from the "Attitude toward the Product/Brand" scale (discussed in Section 3.5.2.3.2.). Participants were presented with a Likert scale ranging from 1= "Strongly disagree" to 7 = "Strongly disagree" and they were asked to indicate their perceived quality of the product.

Factor	*Coding*	*Likert Items (Strongly disagree/Strongly agree)*
Perception of Quality	QUAL_1	The quality of the product in the advertisement is good
	QUAL_2	The quality of the product in the advertisement is high
	QUAL_3	The quality of the product in the advertisement is excellent
	QUAL_4	The quality of the product in the advertisement is superior
	QUAL_5	The quality of the product in the advertisement is desirable

Table 3.7.: Likert scale Items for Perception of Quality

3.5.2.3. Attitudes toward the Brand

To measure Attitudes toward the Brand, two distinct scales were selected. The first scale, Attitudes toward the Brand (General), was selected to measure the overall evaluation of the brand. Moreover, in the literature it was determined that Millennials are drawn to wine brands that are innovative and attractive (Henley et al., 2011; Thach & Olsen, 2006). Additionally, a holistic brand image has been found to be more appealing to consumers' (Orth & Malkewitz, 2008; Sherman & Tuten, 2011). Therefore, a second scale was selected to measure Attitudes toward the Brand (Attributes). The items included in this scale appear to measure four distinct attributes: favourable, attractive, novel, and consistent. These scales are detailed in the following sections.

3.5.2.3.1. Attitudes toward the Brand (General)

The original scale was composed of four statements intended to measure a persons' attitude toward the brand featured in the advertisement they were exposed to (Bruner, 2012). The scale items included were informed by the "Brand Attitude" scale by Kim, Haley, and Koo (2009). Bruner (2012) pointed out that the scale was adapted from Lee and Mason (1999). The version of the scale adapted by Kim et al. (2009), and the one adopted for this survey, reported a Cronbach's Alpha of .98 (Bruner, 2012). Responses were measured on a seven point Likert scale ranging from 1 = "Strongly disagree" to 7 = "Strongly agree".

Factor	*Coding*	*Likert Items (Strongly disagree/Strongly agree)*
Attitudes toward the Brand (General)	ATTB_1	I reacted favourably towards the brand in the advertisement
	ATTB_2	I feel positively towards the brand in the advertisement
	ATTB_3	I like the brand in the advertisement
	ATTB_4	I am more interested in the brand as a result of the information in the advertisement

Table 3.8.: Likert Scale Items for Attitudes toward the Brand (General)

3.5.2.3.2. Attitudes toward the Brand (Attributes)

Attitudes toward the Brand (Attributes) was developed by drawing items from the scale "Attitude toward the Product/Brand" The original scale consisted of various semantic differentials developed to measure respondents' evaluation of the product or brand (Bruner, 2009). Various versions of this scale have been employed in research in the marketing field, notably in research published in the *Journal of Consumer Research*, the *Journal of Marketing Research*, and the *Journal of Advertising* (Bruner, 2009). There is no common origin for the scale and it has been adapted in a plethora of studies to suit the research context (Bruner, 2009). Reported reliabilities have varied, however they usually appear to be within the range .70 (Iyer, 1988) to .98 (Kozup, Creyer, & Burton, 2003; Bruner, 2009), although it must be noted that the scale items employed are often significantly reduced.

The scale items were adapted for the thesis to include one adjective and participants were asked to indicate their level of disagreement/agreement on a Likert scale of seven items, 1 = "Strongly disagree" to 7 = "Strongly agree". The original scale was reduced from forty-eight items to twelve items for this study.

Factor	*Coding*	*Likert Items (Strongly disagree/Strongly agree)*
Attitudes toward the Brand (Attributes)	ATT_1	The brand in the advertisement is favourable
	ATT_2	The brand in the advertisement is positive
	ATT_3	The brand in the advertisement is pleasant
	ATT_4	The brand in the advertisement is attractive
	ATT_5	The brand in the advertisement is appetizing
	ATT_6	The brand in the advertisement is appealing
	ATT_7	The brand in the advertisement is distinctive
	ATT_8	The brand in the advertisement is novel
	ATT_9	The brand in the advertisement is fresh
	ATT_10	The brand in the advertisement works well
	ATT_11	The brand in the advertisement is convincing
	ATT_12	The brand in the advertisement is consistent

Table 3.9.: Likert Scale Items for Attitudes toward the Brand (Attributes)

3.5.3. Measures for Covariates

3.5.3.1. Product Involvement

The Product Involvement scale items were employed from the scale by Coulter, Price, and Feick (2003), which originally consisted of nine statements designed to measure a persons' interest in a product category. Bruner (2009) notes that the items and terms in the scale are similar to many other involvement scales and that the items most closely resemble those of Zaichowsky (1994) and Higie and Feick (1989). Bruner (2009) also identified that the scale appears to measure a facet of self-concept theory. As identified in extant literature, wine has been identified as a high involvement product with self-concept theory playing a role in the decision making process (Delmas & Grant, 2014; Hall & Mitchell, 2006; Spielmann et al., 2016). Subsequently, this scale was condensed and determined to be a valuable addition to the survey. Consistent with the format of the survey, participants were asked to indicated their level of disagreement/agreement on a Likert scale ranging from 1 = "Strongly disagree" to 7 = "Strongly agree".

Factor	*Coding*	*Likert Items (Strongly disagree/Strongly agree)*
Product Involvement	PCI_1	Wine brands are part of my self-image
	PCI_2	Wine brands portray an image of me to others
	PCI_3	Wine brands tell others about me
	PCI_4	Wine brands tell me about other people
	PCI_5	Wine brands are fun to me
	PCI_6	Wine brands are exciting to me

Table 3.10.: Likert Scale Items for Product Involvement

3.5.3.2. Advertisement Comprehension

As identified in extant literature, there is still a lot of ambiguity around the term sustainability when considered in the context of the wine industry. Accordingly, included in the survey was a scale to measure participants' understanding of the messages in the advertisement. This scale was developed by Smith, Chen, and Yang (2008). The scale reported a reliability coefficient of .76 (Smith et al., 2008). The original scale included one item that was reverse coded: "3. The advertisement claims were hard to understand" (Smith et al., 2008), however, this item was adapted for this research. Participants' indicated their level understanding on a seven-point Likert scale, 1 = "Strongly disagree" to 7 = "Strongly agree".

Factor	*Coding*	*Likert Items (Strongly disagree/Strongly agree)*
Advertisement Comprehension	ADC_1	The information in the advertisement was easy to understand
	ADC_2	I was able to comprehend the claims made in the advertisement
	ADC_3	The information in the advertisement made sense to me

Table 3.11.: Likert Scale Items for Advertisement Comprehension

3.5.3.3. Environmentalism

The Environmentalism scale measures a persons' concern for the environment. It was identified in past literature that concern for the environment is a predictor of intention to purchase eco-friendly wines (Barber et al., 2009; Mueller & Remaud, 2010; Sogari et al., 2015). Participants were presented with four statements regarding environmental attitudes and

asked to indicate their level of disagreement/agreement on a Likert scale ranging from 1 = "Strongly disagree" to 7 = "Strongly agree". The original scale was developed by Schuhwerk and Lefkoff-Hagius (1995) and they reported the scale reliability with a Cronbach's alpha of .90.

Factor	*Coding*	*Likert Items (Strongly disagree/Strongly agree)*
Environmentalism	ENV_1	I am concerned about the environment
	ENV_2	The condition of the environment affects the quality of my life
	ENV_3	I am willing to make sacrifices to protect the environment
	ENV_4	My actions impact on the environment

Table 3.12.: Likert Scale Items for Environmentalism

3.5.3.4. Preference for Local Products

This scale was developed by the researcher with guidance from a study by Brown (2003) which was investigating consumers' preferences for locally produced food in Missouri, United States. The items for the scale were developed with reference to the survey questions from Brown's (2003) research. In particular, "How often do you look at labels to see where a product is made?" (p. 218) and the response items for reasons to purchase produce from a farmers market, which included "locally grown" (p. 217). The article identified that consumers take into consideration the distance the products have travelled and consider the term "locally grown" as grown within the region not the state. Therefore, it was important to be as explicit as possible when developing the statements and use locale terms to avoid misinterpretation. As above, participants' indicated their preference on a seven-point Likert scale ranging from 1 = "Strongly disagree" to 7 = "Strongly agree".

Factor	*Coding*	*Likert Items (Strongly disagree/Strongly agree)*
Preference for Local Products	LP_1	I often look at labels to see where the product has been produced
	LP_2	I prefer to purchase local products, produced within my local area or state
	LP_3	I prefer to purchase domestic products, produced within the United States of America

Table 3.13.: Likert Scale Items for Preference for Local Products

3.5.3.5. Country-of-Origin Product Image

This scale has three items that were designed to measure a persons' overall attitude toward a country and products produced in that country (Bruner, 2012). The scale items were developed by Lui and Johnson (2005), and informed by Lee and Ganesh (1998) and Parameswaran and Pisharodi (1994). Lui and Johnson (2005) used a seven-point scale (like/dislike) response style. The current survey employed a seven-point scale response style with the response items 1 = "Very unfavourable" to 7= "Very favourable".

Factor	*Coding*	*Likert Items (Very unfavourable/Very favourable)*
Country-of-Origin Product Image	COO_1	My attitude towards New Zealand as a whole
	COO_2	My attitude towards products made in New Zealand
	COO_3	My attitude towards wine produced in New Zealand

Table 3.14.: Likert Scale Items for Country-of-Origin Product Image

3.5.4. Demographics

Five demographic questions were included in the survey to control for possible impacts on responses that may occur due to demographic variations in the sample. Several sources have reported differing wine consumption and purchasing behaviours between males and females (Barber, 2009; Bruwer et al., 2011; Euromonitor, 2017a; Hall, Mitchell, & Treloar, 2004; Ritchie, 2007). Furthermore, the consumption of wine is expected to rise with age (Batt & Dean, 2000) and the market for table wine is primarily driven by older consumers (Garcia et al., 2013; Orth & Malkewitz, 2008; Teagle et al., 2010). Extant research has demonstrated younger consumers are more concerned about the environment than older counterparts (Barber, 2012; Thach &

Olsen, 2006) and concern for the environment has been shown to positively influence purchase intentions (Barber et al., 2009; Mueller & Remaud, 2010; Sogari et al., 2015). Younger consumers have also been identified to be more variety seeking in wine purchasing behaviour (Olsen et al., 2015) and spend more per bottle than older counterparts (Olsen et al., 2015; Orth & Malkewitz, 2008; Teagle et al., 2010). Income provides consumers with purchasing power, therefore it could have relevance to the study.

Accordingly demographic questions regarding gender, age, income, purchase frequency, and consumption frequency were included in the final survey.

3.6. Online Experiment

This research is an online experiment carried out via Qualtrics. Amazons Mechanical Turk (MTurk) was used to recruit participants using convenience sampling. MTurk is an online crowdsourced marketplace; tasks are posted and workers can choose to complete tasks for monetary compensation (Ballantine & Yeung, 2015). MTurk participants have been shown to be more demographically diverse than standard internet samples and the data obtained has proven to be as reliable as data obtained through traditional collection methods (Buhrmester, Kwang, & Gosling, 2011). Given the geographical barriers, MTurk provided a convenient and rapid method of data collection suitable for this research (Berkinsky, Huber, & Lenz, 2012; Paolacci, Chandler, & Ipeirotis, 2010).

The MTurk recruitment platform controls for multiple responses via restricting users' response frequency and tracking IP addresses (Berkinsky et al., 2012). In addition, it promotes attentive and high quality responses by withholding payment for users who fail attention checks and for those who do not meet the demographic criteria. MTurk has proven to have increased internal validity due to the lack of interaction between the participants and the researchers (Horton, Rand, & Zeckhauser, 2011; Paolacci et al., 2010). Via this platform, this research will be able to employ a suitable sample of North American participants within a short timeframe and at a relatively low cost (Berkinsky et al., 2012; Paolacci et al., 2010).

Participants were randomly assigned to one of twelve experimental conditions to control for the effects of confounding variables and to increase the overall internal validity of the study. Random assignment also controls for individual differences in cognitive style, personality, and personal online experience. An outline of the experimental procedure is presented in the

following sections. The questions were restricted to one to four per page to eliminate the need for scrolling and to avoid overwhelming the respondents. The experimental survey can be separated in eight sections based on the content and questions included.

3.6.1. Section One – Information and Consent (see Appendix 7.3.1.)

The first section presented the information sheet which outlines a broad overview of the research. Participants were asked to consent to participating in the research.

3.6.2. Section Two – Prequalifying (see Appendix 7.3.2.)

To ensure the participants who were willing to participate in the survey met the sample criteria, they were asked to indicate their age and their level of wine consumption and purchase frequency. Those outside of the age groups 21-35 years old and those who had not consumed and purchased wine within the last month were forwarded to the end of survey and thanked for their time.

3.6.3. Section Three – First Stimuli Exposure (see Appendix 7.3.3.)

Participants were randomly assigned to one of twelve experimental conditions. Each condition contains a combination of manipulations. Participants were asked to examine the advertisement for thirty seconds, after which time they could proceed to the following page.

3.6.4. Section Four – Manipulation Checks (see Appendix 7.3.4.)

Proceeding the first exposure to the stimuli, respondents were asked questions in relation to the independent variable manipulations. The sequential order of the questions remained the same across all conditions to avoid any order effects. The first two questions asked respondents to indicate their level of disagreement/agreement to a series of ten personality facets describing the brand featured in the advertisement as Social or Excitement. The following two questions were related to the Product Description and Eco-Label manipulations. All questions were measured on seven-point Likert scale anchored from 1 = “Strongly disagree” to 7 = “Strongly agree”. All questions had to be completed before the respondent could advance to the following section.

3.6.5. Section Five – Second Stimuli Exposure (see Appendix 7.3.5.)

Respondents were exposed to the same advertisement condition as in the first instance. They were asked to familiarise themselves with the advertisement. After ten seconds, they were able to advance to the following section.

3.6.6. Section Six – Dependant Variable Measures (see Appendix 7.3.6.)

This section contained four dependant variable questions, all questions were measured on a seven-point Likert scale. The independent variable measures were Purchase Intention, Perception of Quality, and Attitudes toward the Brand (General) and Attitudes toward the Brand (Attributes). An attention check was concealed within the Purchase Intention scale, as the second item which read: "If you are reading this, please select strongly disagree".

3.6.7. Section Seven – Covariate Measures (see Appendix 7.3.7.)

The following six questions were identified in existing literature as possible predictors of the dependant variables. As above, all except one question was measured using a seven-point agreement scale. The exception is the final question which measures favourability via a seven-point Likert scale anchored from 1 = "Very unfavourable" to 7 = "Very favourable". Additionally, another attention check was included as the third item in the Advertisement Comprehension scale which read: "If you are reading this, please select strongly agree".

3.6.8. Section Eight – Demographics and Finish (see Appendix 7.3.8.)

The final section included three demographic questions regarding gender, income, and age. The age question was repeated to ensure respondents met the sample criteria. Furthermore, the demographic data will allow for analysis based on these factors similar to other research in this field. Finally, participants were thanked for their time and participation. They were asked to submit their Mechanical Turk ID, or email address in the pre-test version of the survey, for remuneration.

3.7. Main Pre-test Procedure

Prior to the main data collection, a final pre-test was carried out to test the effectiveness of the manipulations. The pre-test would also demonstrate whether participants understood how to answer the questions and whether the online survey was fully operational. The data collected allowed for an assessment of the reliability and validity of the selected scales.

3.7.1. Pre-testing Sample

Participants were recruited via Facebook from the University of Canterbury Students Association Noticeboard group. Students were given the opportunity to win one of four 50 NZD Westfield vouchers as an incentive to complete the survey. A copy of the Facebook post can be found in the Appendices (see Appendix 7.4.). A pulsing strategy was used and several posts were scheduled throughout the week, usually during the afternoon or evening, when the page was expected to have the most traffic; approximately 130 responses were collected. Following this strategy, a final post was made on the Victoria University of Wellington Facebook group. An additional 36 responses were collected to conclude a total of 166 responses.

Due to the unique nature of content sharing and filtering via an algorithm that Facebook employs, the exposure of the post cannot be determined and a response rate cannot be calculated. The University of Canterbury Facebook page had 12,589 members and the Victoria University Facebook page had 96,156 members at the time of posting. It cannot be determined if all of the members saw the post and Facebook users outside of the groups may have been exposed to the post via their Facebook friends engagement and interaction with the post.

The data collected was relatively low quality and 60 responses were excluded due to either incompletion, low response time, or straight line responses. The final data set consisted of 106 responses that were deemed suitable for analysis.

3.7.2. Pre-test Results

3.7.2.1. Scale Reliability and Validity

Principal Components Analysis (with Varimax rotation) and Cronbach alpha procedures were carried out to test the dimensionality and reliability of all the measurement scales (Hair, Black, Babin, & Anderson, 2010). Scale items with a communality score lower than .50 or a factor loading of less than .30 were removed (Hair et al., 2010). Additionally, scale items with similar loading scores on more than one factor were removed as they are considered cross-loadings (Hair et al., 2010). This process ensures that inappropriate items were eliminated from the data analysis in order to establish more effective scale reliability. The scale items that were removed can be found in the following Table 3.15.

Scale Item		*Reason for Removal*
Social Brand Personality		
BP2_2	The brand in the advertisement is laid-back	Loaded on component two, low reliability
BP2_3	The brand in the advertisement is original	Loaded on component two, low reliability
BP2_4	The brand in the advertisement is open	Loaded on component two, low reliability
Excitement Brand Personality		
BP3_1	The brand in the advertisement is imaginative	Low communality, .49
BP3_5	The brand in the advertisement is up-to-date	Low communality, .48
Perception of Quality		
QUAL_1	The quality of the product in the advertisement is good	Low communality, .45
Country-of-Origin Product Image		
COO_1	My attitude towards New Zealand as a whole	Low communality, .46

Table 3.15.: Removed Scale Items

Cronbach's alpha procedure was employed to test the scales for internal consistency and reliability. The results verified that all scales exhibited an acceptable level of reliability, ≥ .70 (Cronbach, 1951; Hair et al., 2010). The results are presented in the Table 3.16.

Scale	*Variance Explained*	*Cronbach's Alpha*	*Number of Items*
Independent Measures			
Social Brand Personality	81.36%	.77	2
Excitement Brand Personality	70.82%	.79	3
Sustainable Production Description	90.21%	.95	3
Sustainable Eco-Label	83.21%	.90	3
Dependent Measures			
Purchase Intention	80.78%	.88	3
Perception of Quality	74.00%	.82	3
Attitudes toward the Brand (General)	77.33%	.89	4
Attitudes toward the Brand (Attributes)			
Sub-scale 1 Appealing	64.98%	.89	6
Sub-scale 2 Novel	70.61%	.79	3
Sub-scale 3 Convincing	62.80%	.70	3
Covariate Measures			
Product Involvement	63.18%	.88	6
Advertisement Comprehension	78.53%	.86	3
Environmentalism	68.03%	.83	4
Preference of Local Products	80.03%	.87	3
Country-of-Origin Product Image	76.70%	.68	2

Table 3.16.: Scale Variance and Validity

3.7.2.1.1. Independent Measures

Social Brand Personality

The Principal Components Analysis revealed that the five-item scale loaded onto two factors. Component one explained 34.05 % of the variance and the factor loadings for BP2_1 and BP2_5 were .88 and .90, respectively. The other three items BP2_2, BP2_3, and BP2_4 loaded on to component two, however this had low reliability coefficient of .57, subsequently these items were discarded. Therefore, the revised Social Brand Personality scale consisted of two items, demonstrating a reliability coefficient of .77.

Excitement Brand Personality

The analysis indicated that BP3_1 and BP3_5 had low communalities, .49 and .48 respectively, therefore these items were removed. The revised Excitement Brand Personality scale consisted of three items with a reliability coefficient of .79.

3.7.2.1.2. Dependent Measures

Perception of Quality

The Principal Components Analysis indicated that QUAL_1 had a communality score of .45, consequently, it was removed. The revised scale consisted of four items demonstrating a reliability of .82.

Attitudes toward the Brand (Attributes)

This scale was composed of twelve adjectives determined to assess participants' Attitudes toward the Brand (Attributes). The Principal Components Analysis revealed that three components were found within the scale, component one accounted for 46.00% of the total variance. The six items within component one had loading scores above .65 and communalities above .50. Three items within component two had loadings of above .70 and the remaining three items within component three had loadings above .60. Subsequently, the scale was spilt into three subscales. The first sub-scale was composed of six items and revealed an internal reliability of .89, this scale was named "Appealing" after the item with the highest factor loading score. The other two subscales were named after the highest factor loadings "Novel" and "Convincing". Each contained three items and revealed reliability coefficients of .79 and .70, respectively.

3.7.2.1.3. Covariate Measures

Country-of-Origin Product Image

The analysis revealed that the three items for this scale loaded on to one factor which explained 60.08% of the total variance. All factor loadings were above .60, however item COO_1 had a communality score of .46 which was below the acceptance level, subsequently this item was removed (Hair et al., 2010). The two item scale had an internal reliability of .68. This alpha value is relatively low, however with short scales, such as this one, it is common to find low alpha values (Pallant, 2011). Therefore, as this scale is not being used in current analysis, the two item scale will be retained.

3.7.2.2. Manipulation Checks

The pre-testing procedure was implemented to ensure the experimental conditions were perceived as intended. Using the scale means for each manipulation, both one-way ANOVAs and independent samples t-tests were carried out to determine if a significant ($p < .05$) difference exists between the means of the manipulated conditions.

3.7.2.2.1. Manipulation Check for Brand Personality

Social Brand Personality

A one-way ANOVA was implemented to identify whether there was a significant difference between the mean scores of the different image conditions for Social Brand Personality. The Social facets developed by Spielmann et al. (2016) were employed to measure the Brand Personality conveyed through an image. The ANOVA test revealed that there were some significant differences ($F = 74.32$, $p < .01$). The three means for the different conditions were: No Brand Personality ($\bar{x} = 3.25$), Social Brand Personality ($\bar{x} = 5.42$), and Excitement Brand Personality ($\bar{x} = 5.63$). The Levene's Statistic ($p = .78$) showed the assumption of homogeneity variance had not been violated. The mean difference between the Social Brand Personality and No Brand Personality conditions was 2.17 and statistically significant ($p < .01$). The mean difference between the Social Brand Personality and Excitement Brand Personality conditions was -.21 and not statistically significant ($p = .59$). The findings indicate that participants were able to see a difference between the Social and No Brand Personality conditions, however, they were unable to distinguish a clear difference between the Social and Excitement Brand Personality conditions.

Excitement Brand Personality

A one-way ANOVA was also conducted for the Excitement Brand Personality to test whether the manipulated conditions of No Brand Personality, Social Brand Personality, and Excitement Brand Personality were perceived as intended. For the manipulation check of Excitement Brand Personality using Aaker's (1997) adapted scale, the mean scores found this condition was successfully manipulated. The test revealed some significant differences ($F = 23.87$, $p < .01$). The mean scores for each condition were No Brand Personality ($\bar{x} = 2.61$), Social Brand Personality ($\bar{x} = 3.56$), and Excitement Brand Personality ($\bar{x} = 4.35$). The Levene's Statistic ($p = .90$) showed that there was no significant difference in variance between groups. The mean difference between the Excitement Brand Personality and No Brand Personality conditions was

1.74 and statistically significant ($p < .01$). The mean difference between the Excitement Brand Personality and Social Brand Personality conditions was .79 and statistically significant ($p < .01$). These results indicate that respondents were able to see a difference between the Excitement, Social, and No Brand Personality conditions.

Given these results the image conditions were deemed to be successful and remained unchanged for the final experiment. Although the first manipulation check showed there was no statistical difference between the means of Social Brand Personality and Excitement Brand Personality. The second manipulation check reveals that participants did perceive a difference between the two images. Given that the pre-screening and pre-qualifying questions were not implemented for the pre-test study it is possible the participants were not consumers of wine or have not been consciously exposed wine advertising. The sample participants for the final study will be more involved with the product category and will have hopefully received more exposure to wine advertisements to more aptly review the advertisement images. It is also possible in the final survey that the Social Brand Personality items will be retained for the analysis.

3.7.2.2.2. Manipulation Check for Production Description

An independent samples t-test was used to determine whether there was a significant difference between the mean scores for Sustainable Product Description, between the advertisement conditions. The measurement scale employed for this manipulation found that the conditions were successfully manipulated. The two means for No Product Description ($\bar{x}$ = 4.14) and Sustainable Product Description ($\bar{x}$ = 5.79) were significantly different (t (104) = -5.62, $p < .001$) from one another.

6.7.2.2.3. Manipulation Check for Eco-Label

An independent samples t-test was implemented to identify whether there was a significant difference between the mean scores of the advertisement with and without an Eco-Label. The measurement scale adopted for the Sustainable Eco-Label revealed that the conditions were successfully manipulated. The two means for No Eco-Label ($\bar{x}$ = 3.27) and Sustainable Eco-Label ($\bar{x}$ = 4.87) were significantly different (t (104) = -6.32, $p < .001$) from one another.

3.7.3. Revisions to the Final Survey

Proceeding the analysis, some adjustments to the final survey were made. The details of these changes are as follows.

3.7.3.1. Attitudes toward the Brand (Attributes)

Further research uncovered some additional items that were added to the scale Attitudes toward the Brand (Attributes). Millennials have been identified to prefer brands that are contemporary, interesting, and eye-catching (Elliot & Barth, 2012; Henley et al., 2011; Larson, 2012). Therefore, some additional items were incorporated into the scale to measure these attributes.

The additional items were drawn from "Attitude toward the Advertisement (Creativeness)" and "Attitude toward the Brand (Fashionable)". Attitude toward the Advertisement (Creativeness) was adapted by White and Smith (2001) to measure the degree to which an advertisement is viewed as original, logical, and well-made. The scale was adapted from a fifty-five item scale developed by O'Quin and Besemer (1989) to measure eleven dimensions of the construct (White & Smith, 2001). For this study, four items from the originality sub-scale: fresh, novel, unique, and original were employed. Additionally, Kwon and Lennon (2009) developed Attitude toward the Brand (Fashionable) which was an adaptation from a scale they had previously developed in 2006. Two items: stylish and up-to-date, were added to the full Attitudes toward the Brand (Attributes) scale as a sub-scale along with the researcher's addition of "modern" to complete the sub-scale "Fashionable".

As demonstrated in the Principal Components Analysis, the Attitudes toward the Brand (Attributes) scale spilt into three components (see Section 3.7.2.1.2.). This result was not surprising as it was identified in the literature that Attitudes toward the Brand scales are often multi-dimensional to incorporate various elements (Singh & Spears, 2004). These sub-scales were renamed: Appealing, Novel, and Consistent. Subsequently, the scales are presented in the Table 3.17., categorised into expected sub-scales. Although, it is also possible that the scale will spilt up differently in the final experiment.

Factor		*Coding*	*Likert Items (Disagree/Agree)*
Attitudes toward the Brand (Attributes)			
Sub-scale 1	Appealing	ATT_1	The brand in the advertisement is favourable
		ATT_2	The brand in the advertisement is positive
		ATT_3	The brand in the advertisement is pleasant
		ATT_4	The brand in the advertisement is attractive
		ATT_5	The brand in the advertisement is appetizing
		ATT_6	The brand in the advertisement is appealing
Sub-scale 2	Novel	ATT_7	The brand in the advertisement is distinctive
		ATT_8	The brand in the advertisement is novel
		ATT_9	The brand in the advertisement is fresh
Sub-scale 3	Consistent	ATT_10	The brand in the advertisement works well
		ATT_11	The brand in the advertisement is convincing
		ATT_12	The brand in the advertisement is consistent
Sub-scale 4	Fashionable	ATT_13	The brand in the advertisement is stylish
		ATT_14	The brand in the advertisement is modern
		ATT_15	The brand in the advertisement is up-to-date
Sub-scale 5	Original	ATT_16	The brand in the advertisement is original
		ATT_17	The brand in the advertisement is unique
		ATT_18	The brand in the advertisement is interesting

Table 3.17.: Revised Likert Scale Items for Attitudes toward the Brand (Attributes)

3.7.3.2. Variety Seeking Behaviour

During the analysis of existing literature, it was identified that variety seeking behaviour has proven to be a predictor of intentions to purchase eco-friendly wines (Olsen et al., 2015). This scale was drawn from the original study by Olsen et al. (2015) from which they adapted the scale by Van Trijp and Steenkamp (1992), originally developed to measure variety seeking behaviours with respect to food. Olsen et al. (2015) reported a Cronbach's alpha of .86 which indicates the reliability of the scale. The scale consisted of eight items intended to be measured on a five-point Likert scale. This study employed five of the eight items and used a seven-point Likert scale ranging from 1 = "Strongly disagree" to 7 = "Strongly agree" to measure responses, consistent with the other questions.

Factor	*Coding*	*Likert Items (Strongly disagree/Strongly agree)*
Variety Seeking Behaviour	VAR_1	I like to try the most unusual wines, even if I am not sure I would like them
	VAR_2	I think it is fun to try out wines I am not familiar with
	VAR_3	I enjoy trying new wines
	VAR_4	I like to drink exotic wines
	VAR_5	I like to try wines from different countries

Table 3.18.: Likert Scale Items for Variety Seeking Behaviour

3.8. Experiment Procedure

3.8.1. Recruitment of Respondents

Participants for the final survey were recruited via the MTurk platform which consisted of North American citizens. A pre-screening feature was implemented to ensure the users qualified for the study. Participants had to meet the following criteria: aged between 21 and 35 years old and had consumed and purchased wine within the last month. Consistent with the average legal drinking age in the United States, participants were required to be at least 21 years old (CDC, 2017). Furthermore, an age limit of 35 applied due to the focus of the study being Millennial consumers. Additionally, the second section of the survey provided another control to ensure participants met the sample criteria. Those who selected options which indicated they did not meet the sample requirements were forwarded to the end of the survey and thanked for their time.

The objective of the research is to identify consumers' intentions, perceptions, and attitudes toward sustainable New Zealand wine. New Zealanders predominantly consume domestically produced wine (Euromonitor, 2016). Therefore, the fact that is it produced in New Zealand is not a point of difference that consumers would consciously develop attitudes toward. Accordingly, Millennials from the United States were selected as a participant sample because the United States is currently New Zealand's largest wine export market (Szegota, 2017; Euromonitor, 2017a). Similarly, it was important to have a non-student sample in order to provide results reflective of the United States' market characteristics. Student samples can provide a limited age range and income level which could affect the results of the study. MTurk

would provide a more diverse range of participants whilst still controlling for the specified sample criteria.

MTurk participants were directed to the experiment survey hosted on Qualtrics via a distribution link. Once they passed the pre-qualifying questions they were shown one of twelve advertisements via the Qualtrics randomiser tool. The study aimed to employ 40 participants per condition to provide 480 responses for validity. Accordingly, 600 participants were employed to account for response error. The suggested sample size is similar to other research in this field which has employed an experimental design (e.g. Boudreaux & Palmer, 2007; Elliot & Barth 2012; Sherman & Tuten, 2011).

3.8.2. Quality Control

Participants were offered 1.50 USD for the completion of the survey, the average response time was ten minutes. The response rate is affected by time investment and compensation amount (Buhrmester et al., 2011), therefore a competitive rate was offered to recruit participants in a timely manner.

MTurk allows researchers to withhold payments and withdraw compensation for unsuitable responses. Several mechanisms were implemented to ensure the responses were of high quality and met the sample requirements. As discussed, the pre-screening tool by MTurk was implemented and pre-qualifying questions were also included in the survey prior to the start of the experiment. Moreover, participants who fail the attention checks were removed along with those with short completion times.

3.8.3. Ethical Considerations

This research was conducted in accordance with the guidelines prescribed by the University of Canterbury Human Ethics Committee. Prior to the pre-testing and data collection, the University of Canterbury Human Ethics Committee reviewed and approved the proposed research (see Appendix 7.5.).

To ensure these ethical guidelines were upheld participants were pre-empted with an Information Sheet and Consent Form prior to participating in the study (see Appendix 7.3.1.). The Information Sheet provided a broad description of research, however it did not fully inform the participants of the purpose of the study to ensure the responses were not influenced by this knowledge. Participants were reminded that their responses were anonymous and

provided with the contact details of the primary researcher, the primary supervisor, and the Human Ethics Committee. Finally, respondents were asked to complete a consent form in which they were to confirm that they understood their rights to withdraw at any point before completion. They were informed that the research would be made publically available after completion. If respondents did not wish to continue with the survey they could simply exit the survey window at any time.

For the main pre-test, respondents were asked to provide their email address to be entered into a prize draw. Although this information was linked to their responses data, participants were informed that this information was collected for the sole purpose of randomly selecting the four winners for the prizes and contacting them to receive their prize. Entry into the competition and providing an email address was voluntary. Furthermore, in the final study participants were required to provide their MTurk worker ID. Although this was also attached to their response data, the ID was only used to compensate suitable participants and withhold remuneration for unsatisfactory responses. The MTurk ID was not accompanied with any personal information that the researcher could use to identify or contact the participants.

3.9. Chapter Summary

This chapter outlined the details of the quantitative research methodology adopted to test the hypotheses discussed in Chapter Two (see Section 2.4.). This chapter explained and justified the decision to employ an experimental design to complete this thesis. The stimuli development process was discussed to provide justification for the manipulations and print advertisements as vehicles for the experiment. Next, the survey development was outlined and rationale for selected measurement scales and demographic questions were provided. The recruitment platform MTurk was introduced and discussed, followed by an outline of the survey flow in order of sections as they would be presented to the participants in practise. Proceeding the experiment development, details of the main pre-test were outlined and the results from the analysis provided reliability and validity for the selected scales. The chapter concludes with a proposal for the final experiment including recruitment of respondents, quality control, and ethical considerations. The next chapter will provide an analysis of the data collected and the results found.

4. Results

4.1. Introduction

The aim of this chapter is to present the results of the statistical analyses carried out to test the hypotheses outlined in Chapter Two (see Section 2.4.). The first section provides an overview of the sample including demographic information and participant exclusions. The following section provides the result of the analyses carried out to test the dimensionality and reliability of the scales employed in this study. Next, the effectiveness of the experimental manipulations are examined. Finally, the last section provides the findings for the hypothesised relationships.

4.2. Sample Size and Composition

4.2.1. Sample Size

The final experiment took place on 13th of November, 2017. The responses were collected over a 24 hour time frame.

A total of 721 responses were collected. 64 incomplete responses were deleted; the majority of respondents that did not complete the full survey withdrew before the first stimuli exposure. Overall, 657 completed responses were received.

The data was screened to ensure the responses were of high quality. There were five pairs of responses which were recorded from the same I.P. addresses, therefore they were compared to ensure variation. Two pairs were identified to have the same worker IDs indicating that two people had completed the survey twice, subsequently these responses were deleted. The remaining three pairs had different worker IDs and two had gender differences indicating that the survey was filled out by different people within the same household or institution. After reviewing the responses, the three pairs were deemed not suspicious and the data was retained. Furthermore, 24 participants failed the first attention check and 11 failed the second attention check; consequently these responses were removed. 14 participants recorded a response time of under three minutes and six respondents selected the same answer for every question; these responses were deemed unsuitable and removed.

To confirm the sample requirements were met, a pre-screening tool was implemented via the MTurk platform. Additionally, the survey contained three pre-qualifying questions which forwarded participants to the end of the survey if they did not meet the sample requirements. A supplementary age question was included at the end of the survey within the demographic questions to ensure participants were within the age requirements for the survey. Two respondents were deleted as their responses indicated that they were outside of the required age range (e.g. 36 – 40 years) during the second age question. This information was conflicting with the responses they provided at the beginning of the survey which deemed their responses unreliable, consequently they were removed.

Following the screening process, the sample consisted of 596 participants. In order to satisfy the assumptions of specific statistical techniques, such as ANCOVA, an equal sample size per condition is required (Hair et al., 2010), subsequently 56 responses were randomly deleted. The final sample consisted of 45 responses per manipulated condition to conclude in a total of 540 respondents.

4.2.2. Sample Composition

The demographic characteristics of the sample were analysed and the results are presented in Table 4.1. The frequency table indicated 337 participants or 62.40 percent of the sample were female, and 203 participants or 37.60 percent were male. The age distribution shows that 44.80 percent of participants were between 31 and 35 years of age, 40.60 percent were between 26 and 30 years of age, and the remaining 14.60 percent were between 21 and 25 years of age. 29.80 percent of respondents reported an annual income of between 25,000 and 49,999 USD, 26.70 percent indicated between 50,000 and 74,999 USD, and 16.50 percent between 75,000 and 99,999 USD. Furthermore, 40.60 percent of participants indicated consuming wine one to two times a week, 23.00 percent consume wine three to four times a week, and 23.70 percent consume wine two to three times a month. Additionally, 43.30 percent of the sample specified purchasing wine two to three times a month, 27.20 percent once a month, and 23.50 percent reported one to two times a week.

Demographic	*Category*	*Percentage*
Gender	Male	37.60%
	Female	62.40%
Age	21 years – 25 years	14.60%
	26 years – 30 years	40.60%
	31 years – 35 years	44.80%
Income (USD)	Under $25,000	8.10%
	$25,000 - $49,999	29.80%
	$50,000 - $74,999	26.70%
	$75,000 - $99,999	16.50%
	$100,000 - $124,999	9.40%
	$125,000 - $149,999	3.30%
	$150,000 - $174,999	2.00%
	$175,000 - $199,999	2.20%
	$200,000 +	1.90%
Wine consumption behaviour	Everyday	1.70%
	5 – 6 times a week	6.30%
	3 – 4 times a week	23.00%
	1 – 2 times a week	40.60%
	2 – 3 times a month	23.70%
	Once a month	4.80%
Wine purchase behaviour	Everyday	0.40%
	5 – 6 times a week	1.50%
	3 – 4 times a week	4.10%
	1 – 2 times a week	23.50%
	2 – 3 times a month	43.30%
	Once a month	27.20%

Table 4.1.: Demographic Sample Composition

4.3. Scale Structure

Following the demographic analysis of the data, Principal Components Analysis with Varimax rotation was implemented to assess the underlying dimensionality of the scales employed in this research. For these analyses, if the item revealed a loading score of .50 or higher on more

than one factor, it was deemed as a cross-loading and deleted (Hair et al., 2010). Additionally, any items with a loading score under .30 or a communality value under .50 were removed (Hair et al., 2010).

4.3.1. Independent Measures

4.3.1.1. Social Brand Personality

The Social Brand Personality scale proved to be problematic during the analysis. Consistent with the pre-test, the scale items loaded on to two factors. BP2_1 and BP2_5 had high loadings on component one, .87 and .84 respectively. The remaining three items recorded higher loading scores on component two, BP2_2 = .48, BP2_3 = .73, and BP2_4 = .78. Therefore, the scale was divided into two groups and the analysis was carried on each set of items.

In the first analysis, BP2_1 and BP2_5 loaded on to one factor which explained 81.59% of the total variance. Both items indicated high factors loadings .90, and communalities of .82. The Cronbach's alpha confirmed the reliability of scale with a coefficient of .77.

In the second analysis, the three remaining items BP2_2, BP2_3, and BP2_4, revealed one factor. However, factor one only explained 46.93% of the variance and one item, BP2_2, had a low loading score of .26 deeming it below the acceptable level (Hair et al., 2010). Subsequently, this item was removed and the analysis was run again on the remaining two items BP2_3 and BP2_4. The two items loaded on to one component to explain 69.41% of the total variance. The items had high loadings scores of .83 and communalities of .69. However, the Cronbach alpha proved the scale unreliable with a coefficient of .55. The items, BP2_3 and BP2_4, were discarded and the scale retained the two items BP2_1 and BP2_5. This outcome was consistent with the pre-test results.

4.3.1.2. Excitement Brand Personality

The analysis revealed that the five Excitement Brand Personality items adapted from Aaker (1997) loaded on to one component which explained 63.64% of the variance. All the component scores were above .70 and communalities were between .51 and .78, therefore a reliability test was carried out on the full construct. Cronbach's alpha demonstrated a reliability coefficient of .86, subsequently the full construct was deemed acceptable and all items were retained. This result was different from the pre-test results which indicated the removal of two items, BP3_1 and BP3_5.

4.3.1.3. Sustainable Product Description

The Principal Components Analysis suggested that all three items of the Sustainable Product Description scale loaded on to one factor which explained 94.74% of the variance. All items had high factor loadings (≥ .97) and communality scores (> .90). The scale revealed an internal reliability of .97 Cronbach's alpha.

4.3.1.4. Sustainable Eco-Label

The analysis indicated high communalities and component loadings (>.85) for the items of the Eco-Label construct. All items loaded onto one construct which accounted for 90.84% of the variance. The Cronbach's alpha procedure suggested an internal reliability of .97.

4.3.2. Dependent Variables

4.3.2.1. Purchase Intention

The items devised by Lepowska-White et al. (2003) to measure Purchase Intention loaded on to one factor which explained 90.76% of the total variance. The analysis showed high factor loadings (>.90) and communalities (> .85) for all the items. The Cronbach's alpha revealed .95 demonstrating the reliability of the scale.

4.3.2.2. Perception of Quality

The five item Perception of Quality scale loaded on to one factor which explained 80.94% of the total variance. This was a conflicting result to the pre-test analysis of the scale which resulted in QUAL_1 being removed. The factor loadings and communalities all appeared to be high, > .85 and >.70 respectively. The Cronbach's alpha revealed an internal reliability of .94, subsequently the five items were all retained.

4.3.2.3. Attitudes toward the Brand

4.3.2.3.1. Attitudes toward the Brand (General)

The four item scale adapted by Kim et al. (2009) to measure Attitudes toward the Brand (General) loaded on to one component which accounted for 86.57% of the total variance. All factor loadings were above .85 and communality scores were between .77 and .92. The Cronbach's alpha procedure suggested an internal reliability of .94.

4.3.2.3.2. Attitudes toward the Brand (Attributes)

The Attitudes toward the Brand (Attributes) scale proved to be problematic in the analysis due the large amount of items in the scale. The analysis on the full scale revealed three factors.

Therefore, the original scale was spilt into three sub-scales and items were grouped based on their highest factor loading scores.

The first factor consisted of nine items which loaded on component one in the initial analysis. The analysis conducted on the nine items ATT_1, ATT_2, ATT_3, ATT_4, ATT_5, ATT_6, ATT_10, ATT_11, and Att_12 revealed one factor which explained 65.20% of the total variance. All component loadings were between .61 and .87. The communalities were above .5 except for item ATT_12 which was .37. This score was below the acceptance level (Hair et al., 2010), therefore ATT_12 was removed. The eight item sub-scale had an internal reliability of .93 and will be referred to as "Appealing" after the item with highest factor loading.

The second subscale consisted of six items ATT_7, ATT_8, ATT_9, ATT_16, ATT_17, and ATT_18. These six items contained one factor which had a total variance of 71.09%. The factor loadings were high (> .75) and the communalities were between .61 and .78. The subscale had a reliability coefficient of .92 and will be referred to as "Unique" after the item with the highest factor loading.

The third subscale contains three items ATT_13, ATT_14, and ATT_15. These three items loaded on to one component which explained 83.96% of the variance. The factor loadings were all high (> .85) and demonstrated high communality scores (> .75). The Cronbach's alpha indicated an internal reliability of .90. This subscale will be referred to as "Modern" after the item with the highest component loading score.

4.3.3. Covariate Analysis

4.3.3.1. Product Involvement

The Principal Components Analysis revealed that the Product Involvement scale devised by Coulter et al. (2003) appeared to be problematic, differing from the pre-test results. The items loaded on to two factors; four items loaded on to component one and two items loaded on to component two. Subsequently, the two items, PCI_5 and PCI_6, which loaded on to component two were removed. The analysis was conducted again on the four remaining items PCI_1, PCI_2, PCI_3, and PCI_4. These four items loaded on to one factor which explained 83.07% of the variance. The factor loadings (> .85) and communalities were high (> .75). The Cronbach's alpha confirmed the reliability with a coefficient of .93, accordingly the scale was reduced to four items.

4.3.3.2. Variety Seeking Behaviour

The Variety Seeking Behaviour scale composed by Olsen et al. (2015) revealed one factor in the analysis which accounted for 72.51% of the variance. It revealed communality scores of between .67 and .80, additionally all factor loadings were above .80. The Cronbach's alpha exposed a reliability coefficient of .90.

4.3.3.3. Advertisement Comprehension

The analysis revealed all the items for the scale devised by Smith et al. (2008) loaded on to one component which explained 82.29% of the overall variance. All factor loadings (≥ .90) and communality scores (> .80) for the three items were deemed to be high. Cronbach's procedure revealed an internal reliability of .89.

4.3.3.4. Environmentalism

The Environmentalism scale developed by Schuhwerk and Lefkoff-Hagius (1995) revealed one factor which explained 76.31% of the variance. The analysis indicated high factor loadings (≥ .85) and communalities scores (> .70). The reliability coefficient for the scale was .90.

4.3.3.5. Preference for Local Products

The Preference for Local Products scale was devised from Brown's (2003) survey questions developed to investigate consumer preference for locally produced food. The analysis revealed one component which accounted for 58.15%; this result is lower than the typical acceptance level (Hair et al., 2010). One item, LP_1, had a low communality score of .26, therefore this item was removed. The adjusted scale consisted of two items which produced a reliability coefficient of .76.

4.3.3.6. Country-of-Origin Product Image

The analysis revealed that the Country-of Origin Product Image scale developed by Lui and Johnson (2005) loaded on to one component which explained 75.37% of the total variance. This result was different from the pre-test which indicated that item COO_1 should be removed. The analysis showed high component loadings of above .75 and communality scores between .62 and .85. The Cronbach's alpha procedure revealed that the three items had an internal reliability of .84, therefore all items were retained.

4.4. Scale Reliability

Following the Principal Components Analysis which aided in the dimension reduction of problematic scales, the Cronbach's alpha procedure was employed to test the reliability of the scales (Cronbach, 1951; Hair et al., 2010). The results of the procedure have been summarised in Table 4.2.

Scale	*Cronbach's Alpha*	*Number of Items*
Independent Measures		
Social Brand Personality	.77	2
Excitement Brand Personality	.86	5
Sustainable Product Description	.97	3
Sustainable Eco-Label	.97	3
Dependent Measures		
Purchase Intention	.95	3
Perception of Quality	.94	5
Attitudes toward the Brand (General)	.94	4
Attitudes toward the Brand (Attributes)		
Sub-scale 1: Appealing	.93	8
Sub-scale 2: Unique	.92	6
Sub-scale 3: Modern	.90	3
Covariate Measures		
Product Involvement	.93	4
Variety Seeking Behaviour	.90	5
Advertisement Comprehension	.89	3
Environmentalism	.90	4
Preference for Local Products	.76	2
Country-of-Origin Product Image	.84	3

Table 4.2.: Cronbach's Alpha Reliability Coefficients for All Scale Variables

As discussed, all scales revealed a significant Cronbach's alpha value (> .70) which demonstrated the internal reliability of all the constructs (Cronbach, 1951; Hair et al. 2010).

4.5. Descriptive Statistics

Following this procedure, the scales were examined for non-normality and contamination from outliers by conducting tests for skewness and kurtosis. Descriptive statistics were calculated for each variable and are presented in Table 4.3.

The results demonstrate that Social Brand Personality and Sustainable Product Description have a slightly peaked distribution indicated by the positive kurtosis value (Pallant, 2011). Alternatively, Excitement Brand Personality and Sustainable Eco-Label have a negative kurtosis value which is indicative of a flat distribution (Pallant, 2011). Furthermore, all the independent variables demonstrated a slightly negative skewness which indicates there are a larger number of high values (Pallant, 2011). However, most of the scores were relatively close to zero demonstrating nothing unusual. The only exception being Sustainable Product Description which produced a larger skewness score of -1.21. This result suggests participants' had a stronger positive response to this construct. Additionally, the dependent variables: Purchase Intention, Perception of Quality, and Attitudes toward the Brand (Attributes): Unique had a relatively flat distribution indicated by the kurtosis values (< 0) (Pallant, 2011). However, the remaining dependent variables: Attitudes toward the Brand (General) and Attitudes toward the Brand (Attributes): Appealing and Modern had a positive kurtosis value which indicates the distribution is peaked (Pallant, 2011). All the dependent variables have a slightly negative skew indicating a larger amount of high values. Moreover, the covariate measures all indicated a slightly negative skew with Advertisement Comprehension and Environmentalism (> -1) demonstrating a larger effect. This suggests respondents had a stronger positive response to these measures (Pallant, 2011). The kurtosis values for Variety Seeking Behaviour (1.18), Advertisement Comprehension (2.27), and Environmentalism (2.05) signified that the distribution is peaked. The remaining covariate variables either have negative values or values below zero which is representative of a flat distribution with a lower, broad peak (Pallant, 2011).

Scale	*Mean*	*Standard Deviation*	*Skewness*	*Kurtosis*
Independent Measures				
Social Brand Personality	5.09	1.26	-.77	.24
Excitement Brand Personality	4.22	1.14	-.48	-.05
Sustainable Product Description	5.47	1.71	-1.21	.44
Sustainable Eco-Label	4.25	1.67	-.26	-.80
Dependent Measures				
Purchase Intention	4.59	1.28	-.71	-.19
Perception of Quality	4.84	1.11	-.64	-.09
Attitude toward the Brand (General)	4.94	1.29	-.86	.23
Attitude toward the Brand (Attributes): Appealing	5.08	.99	-.80	.48
Attitude toward the Brand (Attributes): Unique	4.13	1.24	-.34	-.58
Attitude toward the Brand (Attributes): Modern	4.99	1.28	-.76	.34
Covariate Measures				
Product Involvement	3.55	1.49	-.03	-1.04
Variety Seeking Behaviour	5.55	.99	-.82	1.18
Advertisement Comprehension	5.97	.90	-1.27	2.27
Environmentalism	5.64	1.03	-1.10	2.05
Preference for Local Products	4.54	1.24	-.25	-.08
Country-of-Origin Product Image	5.62	.83	-.44	-.55

Table 4.3.: Descriptive Statistics for All Scale Variables

Histograms with normal curves and a correlation matrix for all constructs are provided in the Appendices (see Appendix 7.6. and 7.7.). The histograms indicated relatively normal distributions and did not reveal any values of concern. As discussed, some constructs had a negative skewness which was reflected in the histograms, however this result was not surprising. Furthermore, none of the covariate variables appear to strongly correlate with one another ($r < .80$), therefore the statistical assumptions were satisfied (Pallant, 2011).

4.6. Manipulation Checks

The scales measuring the Brand Personality, Product Description, and Eco-Label were employed as manipulation checks to ensure the conditions were manipulated successfully. The mean scores of each manipulation check item for the pre-test and the main experiment are presented in Tables 4.4., 4.5., 4.6., and 4.7. Additionally, the composite means and reliability coefficients are included in the tables.

		Pre-test		Final Experiment	
Scale		*Mean*	*Standard Deviation*	*Mean*	*Standard Deviation*
Social Brand Personality					
BP2_1	The brand in the advertisement is merry	4.54	1.50	4.74	1.52
BP2_5	The brand in the advertisement is sociable	5.05	1.58	5.43	1.27
Total Factor		4.79	1.39	5.09	1.26
Cronbach's Alpha			.77		.77

Table 4.4.: Social Brand Personality Factor Mean Scores

		Pre- test		Final Experiment	
Scale		*Mean*	*Standard Deviation*	*Mean*	*Standard Deviation*
Excitement Brand Personality					
BP3_1	The brand in the advertisement is daring	-	-	3.16	1.32
BP3_2	The brand in the advertisement is exciting	3.70	1.61	4.25	1.55
BP3_3	The brand in the advertisement is spirited	4.25	1.06	4.76	1.51
BP3_4	The brand in the advertisement is imaginative	4.60	1.47	3.87	1.47
BP4_5	The brand in the advertisement is up-to-date	-	-	5.07	1.28
Total Factor		3.53	1.27	4.22	1.14
Cronbach's Alpha			.79		.86

Table 4.5.: Excitement Brand Personality Factor Mean Scores

		Pre-test		Final Experiment	
Scale		*Mean*	*Standard Deviation*	*Mean*	*Standard Deviation*
Sustainable Product Description					
PD_1	The product description suggests this product is sustainable	4.93	1.81	5.50	1.73
PD_2	The product description suggests the product was produced sustainably	5.03	1.86	5.49	1.77
PD_3	The product description suggests this brand produces sustainable wine	5.03	1.77	5.42	1.77
Total Factor		5.00	1.72	5.47	1.71
Cronbach's Alpha			.95		.97

Table 4.6.: Sustainable Product Description Factor Mean Scores

		Pre-test		Final Experiment	
Scale		*Mean*	*Standard Deviation*	*Mean*	*Standard Deviation*
Sustainable Eco-Label					
ECO_1	The product in the advertisement has a sustainable certification	4.28	1.70	4.34	1.77
ECO_2	The product in the advertisement has an eco-label certification	3.80	1.62	4.08	1.72
ECO_3	The eco-label in the advertisement suggests the product has been sustainably certified	4.08	1.71	4.34	1.78
Total Factor		4.06	1.53	4.25	1.67
Cronbach's Alpha			.90		.97

Table 4.7.: Sustainable Eco-Label Factor Mean Scores

To determine the effectiveness of the experimental manipulations, two one-way ANOVAs and two separate independent samples t-tests were conducted. Using the scale means for each manipulation check these analyses determined whether there were significant ($p < .05$) differences between each of the experimental condition levels. The results are presented in the following sections.

4.6.1. Social Brand Personality

To test the effectiveness of the Social Brand Personality manipulation, a one-way ANOVA analysis compared the means between the different manipulated conditions. The test revealed the following means for the different Brand Personality conditions: No Brand Personality ($\bar{x}$ = 4.03), Social Brand Personality ($\bar{x}$ = 5.52), and Excitement Brand Personality ($\bar{x}$ = 5.70). The mean difference between the Social Brand Personality and No Brand Personality conditions was 1.49 and statistically significant ($p < .01$). The difference between the Social Brand Personality and the Excitement Brand Personality conditions was -.18 and not statistically significant ($p = .21$). These results suggest that the participants were able to perceive a difference between the Social Brand Personality and No Brand Personality image conditions, however they could not distinguish a significant difference between the Social Brand Personality condition and the Excitement Brand Personality condition. This result is not surprising since the Social Brand Personality scale is made up of two items which describe the brand in the advertisement as “Merry” and “Sociable”. Both images contain a group of people in a social situation, therefore, these two items could be used to describe both of the images. The main result of interest to the study is that participants could distinguish a difference between the advertisements with experiential elements, such as the Social and Excitement Brand Personalities, in comparison to the advertisement with No Brand Personality. This result is consistent with the pre-test results.

Descriptives			
Brand Personality		**Mean**	**Standard Deviation**
None		4.03	1.12
Social		5.52	.99
Excitement		5.70	.92
Homogeneity of Variances			
Levene's Statistic	4.43	**Significance**	.012
ANOVA (Between Groups)			
F-value	146.88	**Significance**	.000
Multiple Comparisons			
Comparison		**Mean Difference**	**Significance**
Social - None		1.49	**.000**
Social - Excitement		-.18	.212
Excitement - None		1.67	**.000**

Table 4.8.: Manipulation Check for Social Brand Personality

4.6.2. Excitement Brand Personality

For the Excitement Brand Personality condition, a one-way ANOVA was run to test whether the manipulation was perceived as intended. The analysis revealed the following means: No Brand Personality ($\bar{x}$ = 3.77), Social Brand Personality ($\bar{x}$ = 4.27), and Excitement Brand Personality ($\bar{x}$ = 4.63). The multiple comparison analysis revealed the mean difference between Excitement Brand Personality and No Brand Personality was .86 and statistically significant (p < .01). The mean difference between Excitement Brand Personality and Social Brand Personality was .37 and statistically significant (p < .01). These results indicate that participants' perceived a difference between the different Brand Personality image conditions which was reflected in their evaluations of the brand. Therefore, this manipulation was deemed successful.

Descriptives			
Brand Personality		*Mean*	*Standard Deviation*
None		3.77	1.22
Social		4.27	1.01
Excitement		4.63	1.02
Homogeneity of Variances			
Levene's Statistic	5.33	*Significance*	.005
ANOVA (Between Groups)			
F-Value	28.58	*Significance*	.000
Multiple Comparisons			
Comparison		*Mean Difference*	*Significance*
Excitement - None		-.86	**.000**
Excitement - Social		-.37	**.004**
Social - None		.50	**.000**

Table 4.9.: Manipulation Check for Excitement Brand Personality

4.6.3. Sustainable Production Description

An independent samples t-test was implemented to assess whether the Sustainable Product Description condition was perceived as intended. The difference between the means for the No Product Description condition ($\bar{x}$ = 4.60) and Sustainable Product Description condition ($\bar{x}$ = 6.35) was -1.75 and statistically significant ($p < .01$).

Sample Statistics					
Sustainable Product Description	*Mean*	*Standard Deviation*	*t*	*Mean Difference*	*Significance*
No Description	4.60	1.90	-13.88	-1.75	**.000**
Sustainable Description	6.35	.84			

Table 4.10.: Manipulation Check for Sustainable Product Description

4.6.4. Sustainable Eco-Label

An independent samples t-test was conducted to test the effectiveness of the No Eco-Label and the Sustainable Eco-Label conditions. The difference between the means for the No Eco-

Label condition ($\bar{x}$ = 3.30) and the Sustainable Eco-Label condition ($\bar{x}$ = 5.20) was -1.90 and statistically significant ($p < .01$).

Sample Statistics					
Sustainable Eco-Label	*Mean*	*Standard Deviation*	*t*	*Mean Difference*	*Significance*
No Label	3.30	1.46	-16.04	-1.90	.002
Sustainable Label	5.20	1.29			

Table 4.11.: Manipulation Check for Sustainable Eco-Label

4.7. Hypotheses Testing

Following the manipulation checks, several between-subjects factorial analysis of covariance (ANCOVA) were conducted to determine the effects of Brand Personality, Product Description, and Eco-Label on each of the dependent variables (Purchase Intention, Perception of Quality, and Attitudes toward the Brand). Adjustment was provided by six covariate variables: Product Involvement, Variety Seeking Behaviour, Advertisement Comprehension, Environmentalism, Preference for Local Products, and Country-of-Origin Product Image. The three-way ANCOVA procedure analysed the main, interaction, and adjustment effects at the levels determined by the Levene's Test. Partial Eta Squared (η_p^2) values were calculated to determine the size effects of each independent variable on the dependent variables. Preliminary analyses were conducted to ensure there was no violation of the assumptions of normality, linearity, homogeneity of variance, homogeneity of regression slopes, and reliable measurement of the covariate. The results of the analyses revealed all statistical assumptions had been satisfied. The results of the ANCOVA analyses for each dependent variable are detailed in the following sections.

4.7.1. Effect of Brand Personality, Product Description, and Eco-Label on Purchase Intention

The three independent variables were entered as fixed factors into a 3 x 2 x 2 between subjects factorial ANCOVA. The six covariates were included to control for any confounding effects. The descriptive statistics and results of the analysis are presented in Table 4.12. and 4.13.

			Purchase Intention	
Brand Personality	*Product Description*	*Eco-Label*	*Mean*	*Standard Deviation*
None	None	None	3.87	1.26
		Sustainable	4.48	1.46
	Sustainable	None	4.10	1.40
		Sustainable	5.08	0.96
Social	None	None	4.04	1.51
		Sustainable	4.99	1.06
	Sustainable	None	4.52	1.20
		Sustainable	5.10	1.05
Excitement	None	None	4.20	1.41
		Sustainable	4.79	1.10
	Sustainable	None	4.89	0.90
		Sustainable	5.00	1.16

Table 4.12.: Purchase Intention across Experiment Conditions

		Purchase Intention	
Variable	*F*	*Significance*	η_p^2
Product Involvement	40.62	**.00**	.07
Variety Seeking Behaviour	6.01	.02	.01
Advertisement Comprehension	13.68	**.00**	.03
Environmentalism	.30	.58	.00
Preference for Local Products	8.15	**.00**	.02
Country-of-Origin Product Image	10.14	**.00**	.02
Brand Personality	5.71	**.00**	.02
Product Description	9.02	**.00**	.02
Eco-label	24.16	**.00**	.04
Brand Personality * Product Description	.04	.96	.00
Brand Personality * Eco-Label	1.65	.19	.01
Product Description * Eco-Label	.14	.71	.00
Brand Personality * Product Description * Eco-Label	1.82	.16	.01

Table 4.13.: Effects of Conditions and Covariates on Purchase Intention

The Levene's Test of Equality of Error Variance was significant (F = 3.91, $p < .05$). Therefore, for the following analysis the significance level will be $p \leq .01$. The analysis revealed that four covariates had a significant effect on Purchase Intention: Product Involvement (F = 40.62, p = .00, η_p^2 = .07), Advertisement Comprehension (F = 13.68, p = .00, η_p^2 = .03), Preference for Local Products (F = 8.15, p = .00, η_p^2 = .02), and Country-of-Origin Product Image (F = 10.14, p = .00, η_p^2 = .02), which were controlled for. However, the remaining two covariates produced a non-significant effect on Purchase Intention ($p > .01$). Furthermore, the analysis revealed that the main effects for all the independent variables were significant: Brand Personality (F = 5.71, p = .00, η_p^2 = .02), Production Description (F = 9.02, p = .00, η_p^2 = .02) and Eco-Label (F = 24.16, p = .00, η_p^2 = .04). This indicates differences between the means of Purchase Intention at each level of the independent variables. Specifically, the advertisements with the Social Brand Personality image ($\bar{x}$ = 4.64) and the Excitement Brand Personality image ($\bar{x}$ = 4.76) increased Purchase Intention compared to the advertisements with No Brand Personality ($\bar{x}$ = 4.37). The advertisements containing a Sustainable Product Description ($\bar{x}$ = 4.73) generated an increase in Purchase Intention compared to the advertisements without a Product Description ($\bar{x}$ =

4.44). Additionally, the advertisements with a Sustainable Eco-Label ($\bar{x}$ = 4.83) significantly increased Purchase Intention compared to advertisements without an Eco-Label ($\bar{x}$ = 4.35). However, the result for the interaction effects between the paired combinations of independent variables and the interaction effect between the three independent variables was non-significant (F = 1.82, p = .16, η_p^2 = .01). This suggests the results of the independent variables are not dependent on the levels of one another (Pallant, 2011), therefore Hypothesis One is not supported.

4.7.2. Effect of Brand Personality, Product Description, and Eco-Label on Perception of Quality

The 3 x 2 x 2 between subjects factorial ANCOVA analysis was performed again using the three independent variables and the six covariate variables, to measure the interaction effect on Perception of Quality.

			Perception of Quality	
Brand Personality	*Product Description*	*Eco-Label*	*Mean*	*Standard Deviation*
None	None	None	4.27	.97
		Sustainable	5.04	1.08
	Sustainable	None	4.36	1.29
		Sustainable	5.28	.90
Social	None	None	4.31	1.27
		Sustainable	5.20	.99
	Sustainable	None	4.80	1.08
		Sustainable	5.12	.98
Excitement	None	None	4.57	1.07
		Sustainable	5.00	1.03
	Sustainable	None	4.95	.87
		Sustainable	5.17	1.06

Table 4.14.: Perception of Quality across Experimental Conditions

	Perception of Quality		
Variable	*F*	*Significance*	η_p^2
Product Involvement	45.26	**.00**	.08
Variety Seeking Behaviour	.69	.41	.00
Advertisement Comprehension	17.59	**.00**	.03
Environmentalism	5.21	**.02**	.01
Preference for Local Products	7.66	**.01**	.01
Country-of-Origin Product Image	13.33	**.00**	.03
Brand Personality	2.88	.06	.01
Product Description	2.75	.10	.01
Eco-Label	30.83	**.00**	.06
Brand Personality * Product Description	.23	.79	.00
Brand Personality * Eco-Label	3.10	**.05**	.01
Product Description * Eco-Label	.38	.54	.00
Brand Personality * Product Description * Eco-Label	1.94	.14	.01

Table 4.15.: Effects of Conditions and Covariates on Perception of Quality

The Levene's Test was non-significant (F = 1.43, p = .16), therefore for the following analysis the significance level of $p \leq .05$ will be employed. The analysis revealed that five covariates produced a significant effect on Perception of Quality: Product Involvement (F = 45.26, p = .00, η_p^2 = .08), Advertisement Comprehension (F = 17.59, p = .00, η_p^2 = .03), Environmentalism (F = 5.21, p = .02, η_p^2 = .01), Preference for Local Products (F = 7.66, p = .01, η_p^2 = .01), and Country-of-Origin Product Image (F = 13.33, p = .00, η_p^2 = .03). The remaining covariate variables had no significant effect ($p > .05$). The main effect for Product Description (F = 2.75, p = .10, η_p^2 = .01) and the three-way interaction effect between the independent variables (F = 1.94, p = .14, η_p^2 = .01) were not found to be significant for Perception of Quality. This result indicates that Hypothesis Two is not supported. However, the two-way interaction effect for Brand Personality and Eco-Label was significant (F = 3.10, p = .05, η_p^2 = .01). This result suggests that these two variables are dependent on each other in influencing quality perception.

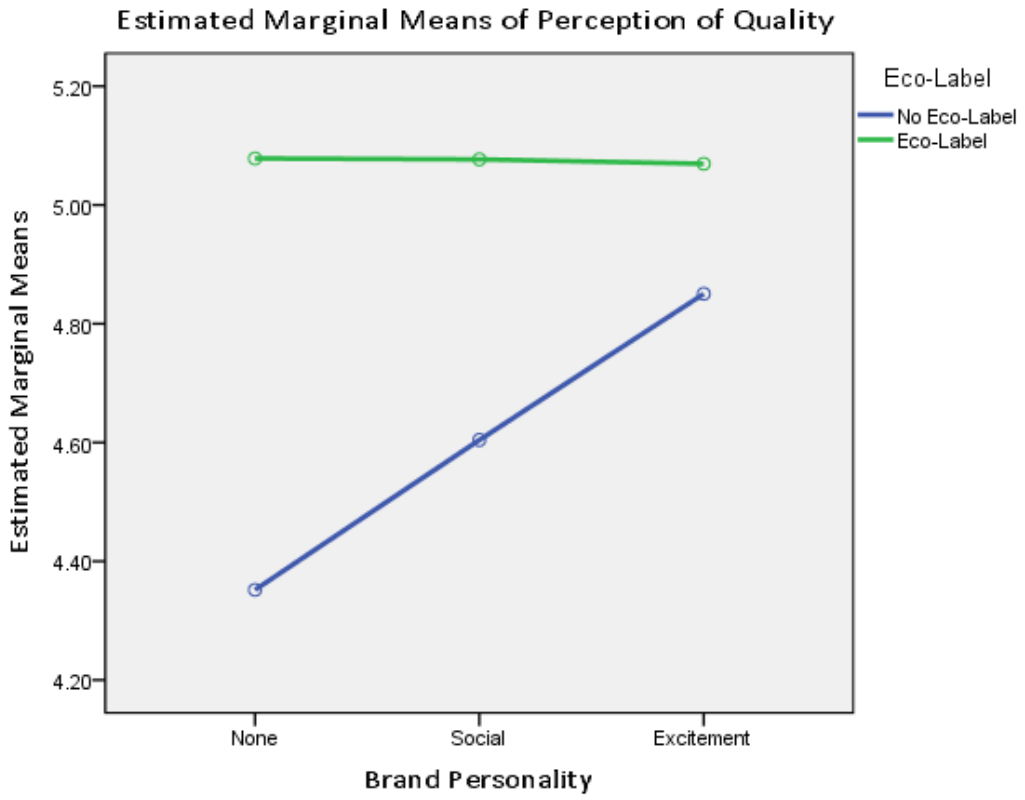


Figure 4.1.: Means Plot for Interaction Effect of Brand Personality and Eco-Label on Perception of Quality

Figure 4.1. illustrates the means for Perception of Quality vary between No Brand Personality ($\bar{x}$ = 4.35), Social Brand Personality ($\bar{x}$ = 4.60), and Excitement Brand Personality ($\bar{x}$ = 4.85) conditions for advertisements with No Eco-Label. However, the mean evaluation of Perception of Quality remains almost unchanged between the different Brand Personality conditions ($\bar{x}$ = 5.08, $\bar{x}$ = 5.08, $\bar{x}$ = 5.07) when advertisements contained a Sustainable Eco-Label. Additionally, the means for quality perception are higher for advertisements that contain a Sustainable Eco-Label regardless of Brand Personality.

4.7.3. Effect of Brand Personality, Product Description, and Eco-Label on Attitudes toward the Brand

A factorial 3 x 2 x 2 between subjects ANCOVA was run to test the effects of the independent variables and covariate variables on Hypothesis Three. The first section details the results for the independent variables effects on Attitudes toward the Brand (General). The second section details the results of the analysis of Attitudes toward the Brand (Attributes). The Principal

Components Analysis revealed this scale was multi-dimensional and contained three components (see Section 4.3.2.3.2.). Therefore, for the following analyses each sub-scale, Appealing, Unique, and Modern, was tested independently. The results of these analyses are presented in the following sections.

4.7.3.1. Attitudes toward the Brand (General)

			Attitudes toward the Brand (General)	
Brand Personality	*Product Description*	*Eco-Label*	*Mean*	*Standard Deviation*
None	None	None	4.22	1.26
		Sustainable	4.95	1.28
	Sustainable	None	4.41	1.49
		Sustainable	5.32	.95
Social	None	None	4.53	1.37
		Sustainable	5.19	1.17
	Sustainable	None	4.89	1.28
		Sustainable	5.39	1.06
Excitement	None	None	4.70	1.49
		Sustainable	5.23	1.10
	Sustainable	None	5.11	1.29
		Sustainable	5.31	1.13

Table 4.16.: Attitudes toward the Brand (General) across Experimental Conditions

	Attitudes toward the Brand (General)		
Variables	*F*	*Significance*	η_p^2
Product Involvement	42.84	**.00**	.08
Variety Seeking Behaviour	3.61	.06	.01
Advertisement Comprehension	19.25	**.00**	.04
Environmentalism	1.02	.31	.00
Preference for Local Products	3.02	.08	.01
Country-of-Origin Product Image	18.95	**.00**	.04
Brand Personality	6.17	**.00**	.02
Product Description	2.81	.09	.01
Eco-Label	17.41	**.00**	.03
Brand Personality * Product Description	.15	.86	.00
Brand Personality * Eco-Label	1.47	.23	.01
Product Description * Eco-Label	.01	.94	.00
Brand Personality * Product Description * Eco-Label	.55	.58	.00

Table 4.17.: Effects of Condition and Covariates on Attitudes toward the Brand (General)

The Levene's test was non-significant (F = 1.77, p = .06), consequently the significance level for this part of the analysis will be $p \leq .05$. The analysis identified three covariates which have significant adjustment effects: Product Involvement (F = 42.84, p = .00, η_p^2 = .08), Advertisement Comprehension (F = 19.25, p = .00, η_p^2 = .04), and Country-of-Origin Product Image (F = 18.95, p = .00, η_p^2 = .04). Subsequently, these effects were controlled for. The results show that Brand Personality (F = 6.17, p = .00, η_p^2 = .02) and Eco-Label (F = 17.41, p = .00, η_p^2 = .03) had a significant main effects on Attitudes toward the Brand (General). This indicates that advertisements with a Social ($\bar{x}$ = 4.98) and Excitement ($\bar{x}$ = 5.12) Brand Personality yielded a higher Attitudes toward the Brand (General) evaluation compared to advertisements with No Brand Personality ($\bar{x}$ = 4.71). Moreover, advertisements with a Sustainable Eco-Label ($\bar{x}$ = 5.14) also increased attitude evaluations when compared to advertisements without an Eco-Label ($\bar{x}$ = 4.73). The three-way interaction effect between the independent variables was found to be non-significant (F = .55, p = .58, η_p^2 = .00). This result indicates there is no significant difference between the means for Attitudes toward the Brand (General) at the different levels of the independent variables.

4.7.3.2. Attitudes toward the Brand (Attributes): Appealing

		Attitudes toward the Brand (Attributes): Appealing		
Brand Personality	*Product Description*	*Eco-Label*	*Mean*	*Standard Deviation*
None	None	None	4.61	.84
		Sustainable	5.12	1.06
	Sustainable	None	4.58	1.28
		Sustainable	5.30	.80
Social	None	None	4.78	1.19
		Sustainable	5.46	.76
	Sustainable	None	5.08	.95
		Sustainable	5.27	.92
Excitement	None	None	4.94	.98
		Sustainable	5.33	.83
	Sustainable	None	5.07	.83
		Sustainable	5.37	.90

Table 4.18.: Attitudes toward the Brand (Attributes): Appealing across Experimental Conditions

	Attitudes toward the Brand (Attributes): Appealing		
Variable	*F*	*Significance*	η_p^2
Product Involvement	31.51	**.00**	.06
Variety Seeking Behaviour	1.90	.17	.00
Advertisement Comprehension	24.51	**.00**	.05
Environmentalism	1.48	.22	.00
Preference for Local Products	2.02	.16	.00
Country-of-Origin Product Image	20.22	**.00**	.04
Brand Personality	6.09	**.00**	.02
Product Description	.01	.91	.00
Eco-Label	18.25	**.00**	.03
Brand Personality * Product Description	.03	.97	.00
Brand Personality * Eco-Label	.77	.46	.00
Product Description * Eco-Label	.10	.76	.00
Brand Personality * Product Description * Eco-Label	2.52	.08	.01

Table 4.19.: Effects of Conditions and Covariates on Attitudes toward the Brand (Attributes): Appealing

The Levene's Test was significant (F = .91, $p < .05$), therefore for the following analysis the significance level will be $p \leq .01$. Consistent with the previous analyses, three covariate variables produced a significant adjustment effect that was controlled for: Product Involvement (F = 31.51, $p = .00$, $\eta_p^2 = .06$), Advertisement Comprehension (F = 24.51, $p = .00$, $\eta_p^2 = .05$), and Country-of-Origin Product Image (F = 20.22, $p = .00$, $\eta_p^2 = .04$). In addition, Brand Personality (F = 6.09, $p = .00$, $\eta_p^2 = .03$) and Eco-Label (F = 18.25, $p = .00$, $\eta_p^2 = .03$) produced a small significant main effect. Advertisements containing the Social ($\bar{x} = 5.14$) or the Excitement ($\bar{x} = 5.20$) Brand personality increased participants' Attitudes toward the Brand (Attributes) : Appealing compared to the advertisements with No Brand Personality ($\bar{x} = 4.89$). Additionally, the advertisements containing a Sustainable Eco-Label ($\bar{x} = 5.24$) received a more positive attitude evaluation compared to advertisements without an Eco-Label ($\bar{x} = 4.91$). However, the tree-way interaction effect between Brand Personality, Product Description, and Eco-Label was non-significant (F = 2.52, $p = .08$, $\eta_p^2 = .01$). This result indicates that the independent variables had no effect on Attitudes toward the Brand (Attributes): Appealing at the different manipulated levels.

4.7.3.3. Attitudes toward the Brand (Attributes): Unique

			Attitudes toward the Brand (Attributes): Unique	
Brand Personality	*Product Description*	*Eco-Label*	*Mean*	*Standard Deviation*
None	None	None	3.71	1.13
		Sustainable	4.30	1.38
	Sustainable	None	3.65	1.43
		Sustainable	4.55	1.11
Social	None	None	3.67	1.30
		Sustainable	4.38	1.06
	Sustainable	None	4.20	1.16
		Sustainable	4.50	1.17
Excitement	None	None	3.76	1.15
		Sustainable	4.35	1.01
	Sustainable	None	3.96	1.29
		Sustainable	4.56	1.18

Table 4.20.: Attitudes toward the Brand (Attributes): Unique across Experimental Conditions

	Attitudes toward the Brand (Attributes): Unique		
Variables	*F*	*Significance*	η_p^2
Product Involvement	41.84	.00	.07
Variety Seeking Behaviour	.26	.61	.00
Advertisement Comprehension	7.32	.01	.01
Environmentalism	3.27	.07	.01
Preference for Local Products	12.23	.00	.02
Country-of-Origin Product Image	5.90	.02	.01
Brand Personality	1.13	.33	.00
Product Description	2.24	.14	.00
Eco-Label	28.67	.00	.05
Brand Personality * Product Description	.95	.39	.00
Brand Personality * Eco-Label	.64	.53	.00
Product Description * Eco- Label	.22	.64	.00
Brand Personality * Product Description * Eco-Label	1.38	.25	.01

Table 4.21.: Effects of Conditions and Covariates on Attitudes toward the Brand (Attributes): Unique

The Levene's Test was not significant (F = 1.16, p =.32), therefore a significance level of $p \leq .05$ was employed for this part of the analysis. The results of the ANCOVA analysis indicated that three covariates had a significant adjustment effect on the dependent variable Attitudes toward the Brand (Attributes): Unique. The following covariate variables were controlled for: Product Involvement (F = 41.84, p = .00, η_p^2 = .07), Advertisement Comprehension (F = 7.32 p = .01, η_p^2 = .01), and Country-of-Origin Product Image (F = 5.90, p = .02, η_p^2 = .01). The independent variable Eco-Label was found to have a significant main effect (F = 28.67, p = .00, η_p^2 = .05). This result indicates that the advertisements containing a Sustainable Eco-Label resulted in more positive attitude evaluations ($\bar{x}$ = 4.40) compared to advertisements that did not contain an Eco-Label ($\bar{x}$ = 3.87). The remaining two independent variables did not produce significant main effects, Brand Personality (F = 1.13, p = .33, η_p^2 = .00) and Product Description (F = 2.24, p = .14, η_p^2 = .00). Furthermore, the three-way interaction effect of the independent variables was non-significant (F = 1.38, p = .25, η_p^2 = .01).

4.7.3.4. Attitudes toward the Brand (Attributes): Modern

		Attitudes toward the Brand (Attributes): Modern		
Brand Personality	*Product Description*	*Eco-Label*	*Mean*	*Standard Deviation*
None	None	None	4.35	1.38
		Sustainable	4.84	1.36
	Sustainable	None	4.41	1.57
		Sustainable	5.13	1.01
Social	None	None	4.70	1.49
		Sustainable	5.24	1.23
	Sustainable	None	5.16	1.13
		Sustainable	5.36	1.04
Excitement	None	None	5.00	1.08
		Sustainable	5.36	1.05
	Sustainable	None	5.04	1.23
		Sustainable	5.28	1.28

Table 4.22.: Attitudes toward the Brand (Attributes): Modern across Experimental Conditions

Attitudes toward the Brand (Attributes): Modern			
Variable	*F*	*Significance*	η_p^2
Product Involvement	27.58	**.00**	.05
Variety Seeking Behaviour	2.10	.15	.00
Advertisement Comprehension	7.74	**.01**	.02
Environmentalism	2.91	.09	.01
Preference for Local Products	.38	.54	.00
Country-of-Origin Product Image	4.56	.03	.01
Brand Personality	10.07	**.00**	.04
Product Description	.60	.44	.00
Eco-Label	8.52	**.00**	.02
Brand Personality * Product Description	.96	.38	.00
Brand Personality * Eco-Label	.73	.48	.00
Product Description * Eco-Label	.01	.94	.00
Brand Personality * Product Description * Eco-Label	.75	.47	.00

Table 4.23.: Effects of Conditions and Covariates on Attitudes toward the Brand (Attributes): Modern

The Levene's test was significant (F = 2.22, $p < .05$), consequently $p \leq .01$ significance level will be used to inform the following analysis. Two covariates were found to have a significant adjustment effect on Attitudes toward the Brand (Modern): Product Involvement (F = 27.58, p = .00, η_p^2 = .05) and Advertisement Comprehension (F = 7.74, p = .01, η_p^2 = .02) which were controlled for. Brand Personality (F = 10.07, p = .00, η_p^2 = .04) and Eco-Label (F = 8.52, p = .01, η_p^2 = .02) were found to have significant main effects on the dependent variable. Advertisements with a Social Brand Personality ($\bar{x}$ = 5.09) and an Excitement Brand Personality ($\bar{x}$ = 5.20) received higher attitude evaluations compared to the advertisements with No Brand Personality ($\bar{x}$ = 4.67). Furthermore, advertisements containing a Sustainable Eco-Label ($\bar{x}$ = 5.14) had a more positive attitude evaluations compared to advertisements without an Eco-Label ($\bar{x}$ = 4.83). The interaction effect between the three independent variables Brand Personality, Product Description, and Eco-Label was not found to be significant (F = .75, p = .47, η_p^2 = .00).

The results of the four ANCOVA analyses conducted to measure consumers' Attitudes toward the Brand revealed that there were no significant three-way interactions effects. This result does not show support for Hypothesis Three, therefore it is rejected.

4.8. Hypotheses Results and Chapter Summary

The primary focus of this chapter was to examine the hypotheses proposed in Chapter Two (see Section 2.4.). A summary of results are presented in Table 4.24.

Hypothesis		Supported
H_1	Brand Personality, Product Description, and Eco-Label will have a significant effect on Purchase Intention	✗
H_2	Brand Personality, Product Description, and Eco-Label will have a significant effect on Perception of Quality	✗
H_3	Brand Personality, Product Description, and Eco-Label will have a significant effect on Attitudes toward the Brand	✗

Table 4.24.: Hypotheses Testing Results

The results of the ANCOVA did not reveal a significant three-way interaction effect for the independent variables: Brand Personality, Product Description, and Eco-Label on any of the dependent variables: Purchase Intention, Perception of Quality, and Attitudes toward the Brand. Thus, *Hypotheses One, Two, and Three are not supported*. However, one significant two-way interaction effect was found and significant main effects were found for each hypotheses.

For Hypothesis One, the factorial ANCOVA revealed significant main effects for all three independent variables: Brand Personality, Product Description, and Eco-label. This indicates that the means for Purchase Intention varied at each level for the three independent variables. Specifically, the advertisements with the Excitement and Social Brand Personality images increased Purchase Intention compared to the advertisements with No Brand Personality. Additionally, the Sustainable Product Description increased Purchase Intention compared to the advertisement with No Production Description. Moreover, the presence of a Sustainable Eco-Label in the advertisements increased Purchase Intention. In addition, four covariate variables were found to have a significant adjustment effects: Product Involvement,

Advertisement Comprehension, Preference for Local Products, and Country-of-Origin Product Image, that were controlled for.

For Hypothesis Two, the analysis revealed a significant two-way interaction effect for Brand Personality and Eco-Label on Perception of Quality. The means plots demonstrated that there was a significant difference between the means for Perception of Quality for the three different Brand Personality conditions when the advertisements did not contain an Eco-Label (see Figure 4.1.). However, there was no difference between the means for Perception of Quality across the three Brand Personality conditions when the advertisements contained a Sustainable Eco-Label. It was also noted that the advertisements containing a Sustainable Eco-Label had a higher mean for Perception of Quality overall, compared to the advertisements that did not contain an Eco-Label. Additionally, the five covariates: Product Involvement, Advertisement Comprehension, Environmentalism, Preference for Local Products, and Country-of-Origin Product Image, were found to have significant adjustment effects which were controlled for.

For hypothesis three, Brand Personality and Eco-Label were found to have significant main effects on the first two scales: Attitudes toward the Brand (General) and Attitudes toward the Brand (Attributes): Appealing. This indicates that the individual levels of each variable had a significant effect on the means for the dependent variables, however the two variables were not dependent on each other. This result suggests that Excitement and Social Brand Personality positively influenced Attitudes toward the Brand (General) and Attitudes toward the Brand (Attributes): Appealing. The presence of a Sustainable Eco-Label in the advertisement also increased attitude evaluations for these two variables. Furthermore, the three covariates: Product Involvement, Advertisement Comprehension, and Country-of-Origin Product Image, had significant adjustment effects that were controlled for in both analyses. These three covariates were also found to have a significant adjustment on Attitudes toward the Brand (Attributes): Unique. Moreover, Eco-Label was found to have a significant main effect on Attitudes toward the Brand (Attributes): Unique, demonstrating that significant differences between the means exist for advertisements that contain a Sustainable Eco-Label compared to advertisements without an Eco-Label. Finally, Brand Personality and Eco-Label were found to have a significant main effect on Attitudes toward the Brand (Attributes): Modern. These results indicated that the Excitement and Social Brand Personality conditions positively influenced Attitudes toward the Brand (Attributes): Modern. Additionally, a Sustainable Eco-

Label positively influenced the dependent variable. Product Involvement and Advertisement Comprehension were found to have significant adjustment effects.

The findings of the analyses will be discussed in more detail in the following chapter.

5. Discussion

5.1. Introduction

This chapter concludes the thesis by discussing the key findings of the statistical analyses in relation to the extant literature. Following the discussion, the managerial and theoretical implications derived from the results of the research are presented. Finally, the limitations of the study are acknowledged and directions for future research are suggested.

5.2. Primary Research Findings

5.2.1. Summary of Research Purpose

This research aimed to identify how sustainable labelling attributes and an experiential brand image influences Millennials' purchase intentions, perceptions of quality, and attitudes toward the brand. In a competitive market, wine brands are searching for ways to stand out and gain a relative advantage over competitors (Thach & Olsen, 2006). Millennials are seeking wine brands that incorporate the experiential and social aspects of the product (Thach & Olsen, 2006). Furthermore, a marketing dilemma affecting producers of eco-friendly wine is that consumers' believe eco-friendly production methods reduce the quality of the wine (Delmas & Grant, 2014; Fotopoulos et al., 2003; Olsen et al., 2012). Although, improving the quality of the wine is one of the main motivations for wineries in the United States to adopt eco-friendly production techniques (Delmas & Grant, 2014); it is clear there is an attitude asymmetry between consumers and producers regarding eco-friendly wine. Therefore, it is important to understand which branding and labelling aspects influence consumers' intentions, perceptions, and attitudes in order for producers to market their wine successfully.

The wine decision making process is complex and requires risk reduction strategies (Olsen et al., 2015; Barber & Almanza, 2006). Consumers are overwhelmed with choice, and point of purchase stimuli, such as wine labels, have been identified to play an influential role in the decision making process (Barber & Almanza, 2006; Constellation Wine US, 2005; Thomas & Pickering, 2003). This research investigated different labelling cues to identify which combination positively influenced Purchase Intention, Perception of Quality, and Attitudes toward the Brand. The goal was to identify the ideal combination of variables influencing

Millennial responses, in order to give marketers insight into the best method of communicating sustainable product attributes.

The results of this research are particularly relevant to the New Zealand wine industry as it is almost 100 percent sustainably certified (New Zealand Wine, 2016; 2017a). Furthermore, a media release by New Zealand Wine (2017d) announced that wine is New Zealand's fifth largest goods export valued at 1.66 billion NZD and it is the third most valuable wine import for the United States behind France and Italy.

The next sections will discuss the results of the statistical analyses in relation to the results found in existing research.

5.2.2. Effect of Brand Personality, Product Description, and Eco-Label on Purchase Intention

Hypothesis One explored the effects of Brand Personality, Product Description, and Eco-Label on Purchase Intention. This hypothesis was based on the existing research which indicated that wine labels significantly influence consumers' decision making process when purchasing wine (Barber & Almanza, 2006; Thomas & Pickering, 2003). It was anticipated that the manipulated levels of Brand Personality would influence consumers' intention to purchase the wine brand featured in the advertisement. This assumption was based on previous findings which revealed that brand personality explained nearly half of the variance in purchase intention (Boudreaux & Palmer, 2007). Accordingly, the two brand personalities that were found to be most appealing to Millennials, excitement and social, were selected as independent variables for this study (Elliot & Barth 2012; Spielmann et al., 2016). Furthermore, to test the effects of the sustainable product attribute, two different manipulations were employed, a Sustainable Product Description and a Sustainable Eco-Label. The decision to include these cues was based on the confounding results in existing wine literature. Delmas and Grant (2014) found that wine produced by eco-certified wineries commanded a price premium, however eco-labelled wine did not. Other studies found that some consumers' are willing to pay a premium price for eco-friendly wines, however these results have varied by gender, country, lifestyle, and level of environmental knowledge and attitudes (Barber, 2012; Brugarolas et al., 2005). The aim of the analysis was to identify how communicating commitment to sustainable production

practices influences purchase intentions. The result of interest to this thesis is which cues positively influence purchase intention.

The results of the ANCOVA analysis revealed that the three-way interaction effect between the independent variables was non-significant. This indicates the independent variables were not dependent on one another to significantly influence Purchase Intention. The ANCOVA found significant main effects for all three independent variables. Regarding the Brand Personality conditions, the results indicated that the Excitement Brand Personality commanded the highest Purchase Intention result to complement previous literature which had identified excitement as the most appealing wine personality to Millennials (Elliot & Barth, 2012). Moreover, the Social Brand Personality generated the second highest Purchase Intention, and the advertisements containing No Brand Personality yielded the lowest result. This result provides empirical evidence for the assumption that an appealing brand personality could influence purchase intentions with Millennial consumers. Furthermore, the advertisements incorporating experiential elements, such as people in a social setting, also influenced Purchase Intention positively compared to the advertisements that did not feature a particular brand personality or experiential attributes.

In addition, the advertisements with the Sustainable Product Description generated a higher Purchase Intention compared to the advertisements without a Product Description. This result implies that Millennials' prefer to purchase eco-friendly wine. The manipulation with the largest effect on Purchase Intention was Sustainable Eco-Label, producing a significantly higher result compared to the advertisements without an Eco-Label. These findings indicate that communicating commitment to sustainable production via an Eco-Label or a Product Description does increase Purchase Intention relative to not communicating sustainable attributes. This result is not surprising as it was emphasised in the literature that Millennial consumers are concerned about the environment and are looking for ways to consume responsibly (Barber, 2012; Thach & Olsen, 2006). Although this result conflicts with other wine research which did not uncover a consumer preference for eco-friendly wine (Delmas & Grant, 2014). It must be noted that the primary focus of this thesis was Millennial consumers, which could explain the difference in results. Finally, consistent with previous findings, Product Involvement was found to have a significant adjustment effect on the results (e.g Hollebeek et al., 2007). Additionally, Advertisement Comprehension, Preference for Local Products, and

Country-of-Origin Product Image also had significant effects that were controlled for. Contrary to extant research, Environmentalism and Variety Seeking Behaviour had no adjustment effects (e.g. Mueller et al., 2011; Olsen et al., 2012; 2015).

5.2.3. Effect of Brand Personality, Product Description, and Eco-Label on Perception of Quality

Hypothesis Two investigated the assumption that the variation of Brand Personality in conjunction with Product Description and Eco-Label would influence participants' Perception of Quality. This relationship was explored due to the lack of consistent results in existing research regarding consumers' perceived quality of eco-friendly wine (Delmas & Grant, 2014; Forbes et al., 2009; Fotopoulos et al., 2003; Olsen et al., 2012). This hypothesis was designed to test the relationship between appealing brand personalities and eco-friendly attributes, as it was suggested in the literature that implementing a holistic brand image could strengthen the position of eco-friendly wine (Orth & Malkewitz, 2009) and overcome the stigma of low quality.

The results of the factorial ANCOVA analysis revealed that there was no significant interaction effect between the three independent variables on Perception of Quality. However, the ANCOVA analysis did reveal a two-way interaction effect between Brand Personality and Eco-Label. Specifically, perceived quality varied at the different levels of Brand Personality for the advertisements that did not contain an Eco-Label. Conversely, for the advertisements that did contain a Sustainable Eco-Label, the Perception of Quality remained relatively the same regardless of the Brand Personality. The Perception of Quality was higher overall for advertisements that contained a Sustainable Eco-Label compared with advertisements that did not contain an Eco-Label. This result indicates that wine with a sustainable eco-label is viewed as superior in quality compared to non-certified wine. This result adds to the mixed results within the literature regarding perceived quality of eco-friendly wine. Whilst the result conflicts with research based in the United States and Europe which indicated consumers' perceive eco-friendly wine as lower quality (Delmas & Grant, 2014; Fotopoulos et al., 2003; Olsen et al., 2012); the result complements another study which revealed that consumers' in New Zealand believe the quality of sustainable wine to be equal or better than conventionally produced wine (Forbes et al., 2009). Finally, Product Involvement, Advertisement Comprehension, Environmentalism, Preference for Local Products, and Country-of-Origin Product Image were

found to have significant adjustment effects that were controlled for. These findings were consistent literature which indicated that an understanding of eco-friendly terms, usually exhibited by people who are environmentally conscious, has been found to influence perceived quality of the product (Delmas & Grant, 2014). Additionally, country-of-origin is prevalent in literature to be an indicator of quality and appellation of origin in the wine industry is largely used to symbolise the quality of the producing country or wine growing region (Bilkey & Nes, 1982; Chrea et al., 2011; Gil & Sánchez, 1997; Johnson & Bruwer, 2014; Mann et al., 2012; Magistris et al., 2011). New Zealand has a prevailing reputation in the wine industry for producing high quality wine (New Zealand Wine, 2017a; Theunissen, 2017).

5.2.4. Effect of Brand Personality, Product Description, and Eco-Label on Attitudes toward the Brand

The aim of this hypothesis was to test the interaction effects of Brand Personality, Product Description, and Eco-Label on Attitudes toward the Brand. As outlined in Chapter Three, two different scales were employed to measure this construct (see Section 3.5.2.3.). The first scale measured consumers' overall evaluation of the brand using the Attitudes toward the Brand (General) scale. The second scale, Attitudes toward the Brand (Attributes), measured consumers' responses to particular brand attributes which were identified in literature to appeal to the Millennial segment. The following sections contain details of findings revealed by the analyses carried out on each construct individually.

5.2.4.1. Attitudes toward the Brand (General)

Attitudes toward the Brand (General) was employed based on the existing literature which indicated Millennial consumers are increasingly environmentally conscious and prefer brands that contain a CSR initiative (Barber, 2012; Barber et al., 2009; Thach & Olsen 2006). Therefore, it was assumed that the advertisements containing a Sustainable Product Description or a Sustainable Eco-Label would stimulate a positive attitude evaluation. Furthermore, based on extant research which indicated Millennials are drawn to excitement and social brand personalities, it was presumed the Brand Personality manipulations would elicit a positive attitude evaluation (Elliot & Barth, 2012; Spielmann et al., 2016).

The ANCOVA revealed the three-way interaction effect was not significant. However, the analysis exposed the main effects for Brand Personality and Eco-Label were significant for

Attitudes toward the Brand (General). Specifically, advertisements containing the Excitement Brand Personality or the Social Brand Personality increased participants' attitude evaluations compared to advertisements with No Brand Personality. Additionally, advertisements that contained a Sustainable Eco-Label generated higher Attitudes toward the Brand (General) compared to advertisements that did not contain an Eco-Label. Extant literature has suggested that consumers are largely reliant on eco-labels awarded by a third party, which are considered as more trustworthy and credible (Harris, 2007; Olsen et al., 2012). This could help explain the reason that the SWNZ Eco-Label influenced a positive attitude evaluation. In addition, Product Involvement, Advertisement Comprehension, and Country-of-Origin Product Image were found to have significant adjustment effects which is consistent previous literature (e.g. Delmas, 2010; Mann et al., 2012; Spielmann et al., 2016).

5.2.4.2. Attitudes toward the Brand (Attributes)

Attitudes toward the Brand (Attributes) was employed to investigate the effect of Brand Personality, Product Description, and Eco-Label on participants' Attitudes toward the Brand (Attributes). The construct was employed due the findings in literature which indicated that Millennial consumers' are attracted to particular brand attributes. Previous research suggested that Millennials' prefer contemporary wine brands that are interesting, innovative, and eye-catching (Elliot & Barth, 2012; Henley et al., 2011; Larson, 2012; Thach & Olsen, 2006). Furthermore, several studies highlighted that having a consistent brand image was key in eliciting positive responses (Orth & Malkewitz, 2008; Sherman & Tuten, 2011). Therefore, the Attitudes toward the Brand (Attributes) scale was employed. As highlighted in literature, brand attitude scales are often multi-dimensional to account for various elements that may influence consumers' attitudes (Singh & Spears, 2004). This observation was proven true in the Principal Components Analysis which led to the scale being spilt into three sub-scales: Appealing, Unique, and Modern (see Section 4.3.2.3.2). Therefore, an ANCOVA analysis was carried out on each sub-scale to reveal which aspects influenced Millennials' responses. The results of each analysis are presented in the following section.

5.2.4.2.1. Attitudes toward the Brand (Attributes): Appealing

The analysis revealed that the three-way interaction effect of the independent variables was non-significant on Attitudes toward the Brand (Attributes): Appealing. This result indicates that there was no variance in the mean of the dependent variable, at the different levels of each

manipulation. Although, Brand Personality and Eco-Label had significant main effects on Attitudes toward the Brand (Attributes): Appealing. Specifically, advertisements with the Brand Personality Excitement or Social generated higher attitude evaluations compared to advertisements with No Brand Personality. Moreover, advertisements with a Sustainable Eco-Label received a more positive attitude evaluation compared to the advertisements without an Eco-Label. This result was supported by the findings in existing research which suggested excitement and social brand personalities appeal to Millennial consumers (Elliot & Barth, 2012; Spielmann et al., 2016). In addition, eco-friendly brands have been identified to be preferred by Millennials', who have shown an increased concern for the environment (Barber et al., 2009; Thach & Olsen, 2006). Finally, Product Involvement, Advertisement Comprehension, and Country-of-Origin Product Image, were found to have significant adjustment effects on the attitude evaluations.

5.2.4.2.2. Attitudes toward the Brand (Unique)

This analysis explored the effect of the interrelationships between the three independent variables on Attitudes toward the Brand (Attributes): Unique. This hypothesis was selected based on the findings that Millennial consumers' are drawn to wine branding that is innovative and eye catching (Henley et al., 2011; Thach & Olsen, 2006). Therefore, investigating which combination of cues were considered as most "unique" would have practical implications.

The ANCOVA analysis revealed that the three-way interaction effect between Brand Personality, Product Description, and Eco-Label was non-significant, although, the analysis did indicate a main effect for Eco-Label. This result demonstrated that advertisements containing a Sustainable Eco-Label generated a higher attitude evaluation compared to advertisements without an Eco-Label. Empirical evidence from the United States found only half of eco-certified Californian wineries displayed an eco-label (Delmas & Grant, 2014). The results suggest the SWNZ eco-label evoked positive attitude evaluations from Millennial consumers, therefore, it is determined that a sustainable eco-label could prove to be a unique selling point for New Zealand wines. As predetermined by existing literature, Product Involvement, Advertisement Comprehension, and Country-of-Origin Product Image were found to have significant adjustment effects that were controlled (e.g. Delmas, 2010; Mann et al., 2012; Spielmann et al., 2016).

5.2.4.2.3. Attitudes toward the Brand (Attributes): Modern

The interaction effects of Brand Personality, Product Description, and Eco-Label on Attitudes toward the Brand (Attributes): Modern were analysed. This hypothesis was investigated due to previous findings which suggest Millennial consumers' are more attracted to the contemporary branding of New World wines compared to the traditional branding of Old World wines (Elliot & Barth, 2012; Hollebeek et al., 2007). Specific manipulation stimuli, such as the presence of people in the advertisement images, was purposefully selected to emphasise the experiential attributes of the product that have been found to appeal to Millennial consumers' (Thach & Olsen, 2006).

The analysis revealed the three-way interaction effect was non-significant. Although, Brand Personality and Eco-Label were identified to have significant main effects on Attitudes toward the Brand (Attributes): Modern. This result indicates that the Excitement and Social Brand Personality commanded higher attitude evaluations compared to the advertisements without a Brand Personality. This result supports research that indicated an experiential brand image would appeal to Millennials (Spielmann et al., 2016; Thach & Olsen, 2006), as their attitude evaluations of the brand was higher for advertisements containing experiential images. Furthermore, the presence of a Sustainable Eco-Label in the advertisement also generated a more positive response compared to advertisements without an Eco-Label. This result could be due to the fact that Millennials identify New World wine as leading the way for eco-friendly practise and keeping up with current trends within an ancient industry. Similar to previous literature, Product Involvement and Advertisement Comprehension were found to significant adjustments effects (e.g. Delmas, 2010; Spielmann et al., 2016).

5.3. Discussion of Main Findings

This research was exploratory in nature and sought to test variable combinations that had not been previously investigated in wine literature. The results of the analyses carried out did not find any significant three-way interaction effects for Brand Personality, Product Description, and Eco-Label on Purchase Intention, Perception of Quality, and Attitudes toward the Brand. Previous research which explored consumers' intentions and perceived quality of eco-friendly wine had led to conflicting conclusions (Delmas & Grant, 2014; Fotopoulos et al., 2003; Olsen

et al., 2012). Moreover, the assumption that these cues would influence Attitudes toward the Brand was based on theoretical grounds (Orth & Malkewitz, 2008).

The results of the analysis revealed a significant two-way interaction effect for Brand Personality and Eco-Label on Perception of Quality. This result indicates Millennials' in the United Sates view eco-labels as a primary signifier of quality regardless of the brand personality. This result was similar to findings which suggested that New Zealand consumers' perceive sustainable wine as equal or better quality than conventional wine (Forbes et al., 2009). In addition, 95 percent of participants indicated they would prefer an eco-label on the bottle to identify this attribute (Forbes et al., 2009). The SWNZ logo was employed as the Sustainable Eco-Label for this study due to its prevailing reputation of endorsing sustainable production in the wine industry (Szolnoki et al., 2011). Therefore, it is possible that the participants of this study could have been familiar with the initiative. If this insight proved true, this could explain the Sustainable Eco-Labels significance in influencing the participants' evaluation of perceived quality. In addition, it would indicate that the SWNZ eco-label is a key marketing tool to indicate commitment to sustainable production. This result also provides insight for marketers of eco-friendly and conventionally produced wine. The presence of a Sustainable Eco-Label in the advertisements generated an equal perceived quality across all the Brand Personality conditions. However, for the advertisements without an Eco-Label, the Brand Personality had a significant effect on perceived quality. The results revealed that the Excitement Brand Personality condition generated the highest perceived quality followed by the Social Brand Personality condition. These findings suggest that when consumers are evaluating wine brands without an eco-label they rely more on branding cues, such as Brand Personality, to determine the quality of the wine.

Eco-Label also proved to have a significant main effect for Purchase Intention and Attitudes toward the Brand: General and Attitudes toward the Brand (Attributes): Appealing, Unique, and Modern. These findings suggest that Millennials in the United States have higher intentions to purchase and attitude evaluations of wine advertisements with a Sustainable Eco-Label compared to advertisements without an Eco-Label. Although the effects were small for each analysis, it is not a result to be overlooked. It provides an opportunity for the New Zealand wine industry to implement a SWNZ eco-label. Extant research has suggested a trustworthy and reputable Eco-Label should be successful (Harris, 2007). Therefore, SWNZ should leverage

their established brand presence and reputation to implement an eco-label for New Zealand wineries to adopt. As pointed out, SWNZ eco-labels could provide a unique selling point for New Zealand wines in overseas markets.

Brand Personality produced a main effect for Purchase Intention, Attitudes toward the Brand (General), and Attitudes toward the Brand (Attributes): Appealing and Modern. Across all analyses, Excitement Brand Personality generated the highest intentions and attitude evaluations followed by Social Brand Personality. This result provides empirical evidence to support the claims that Millennials are seeking wine brands that incorporate the experiential and social aspects of the hedonic product (Thach & Olsen, 2006). It complements the findings that excitement and social wine personalities do appeal to this generation (Elliot & Barth, 2012; Spielmann et al., 2016). In addition, it adds to the limited body of research exploring brand personality in a wine context. The main insight from these results is that an innovative and contemporary brand image did increase the Purchase Intention and Attitudes toward the Brand for Millennials in the United States.

Finally, Product Description produced a significant main effect for Purchase Intention. Specifically, advertisements with a Sustainable Product Description generated a higher Purchase Intention compared to advertisements with No Product Description. These results align with extant research that suggests Millennial consumers' prefer eco-friendly brands and seek to consume lifestyle products responsibly (Barber, 2012; Thach & Olsen, 2006). Alternatively, Product Description only produced an effect for Purchase Intention whereas, Eco-Label produced main effects for all of the outcome variables. This finding demonstrates that consumers' will purchase sustainable wine over conventional wine, however a Sustainable Eco-Label will generate higher intentions, perceptions, and attitude evaluations. It was determined that the presences of a Sustainable Product Description without the presence of an eco-label could be interpreted by participants as green washing. Consequently, if participants could not determine the credibility of the claim, it would not influence their perceived quality and attitude evaluations significantly.

Overall, this research completed the intended research objectives by identifying that sustainable labelling attributes, such a sustainable product description and a sustainable eco-label, positively influence Millennials' purchase intention, perception of quality, and attitudes toward the brand. Additionally, it highlighted that an experiential brand image, such as an

excitement or social brand personality, positively influences Millennials intentions, perceptions, and attitudes. The results of this research demonstrated a relationship between Eco-Label and Brand Personality which showed that a Sustainable Eco-Label significantly heightens consumers' quality perceptions regardless of the Brand Personality employed. This research has practical and theoretical implications that will be discussed in the following sections.

5.4. Research Contributions

The findings of the current research provide managerial and theoretical implications which are outlined in the following sections.

5.4.1. Managerial Implications

The aim of this research was to provide New Zealand wineries with insight into the best method to market commitment to sustainable production practices. The existing literature produced mixed results on consumers' responses to eco-friendly attributes in wine labelling (Barber et al., 2009; Delmas & Grant, 2014). This has practical implications, as it is difficult for marketers to determine the best method to market eco-friendly attributes. This thesis aimed to be specific in its approach by employing experiential brand personalities, a sustainable product description, and a SWNZ eco-label in order to measure the effects on Millennial consumers' intentions, perceptions, and attitudes. Although the results revealed no interaction effects between the variables, significant main effects were discovered. The results provide useful insight into how Millennials' response to different wine label stimuli.

The results of the research are positive for the New Zealand wine industry as they demonstrate that the SWNZ Eco-Label generated a higher Purchase Intention, Perception of Quality, and Attitudes toward the Brand. These results highlight a marketing opportunity to develop the SWNZ certification logo into an eco-label that New Zealand wineries can adopt on the front of their wine labels. Although the context of the research was Millennial consumers in the United States, consumers from New Zealand have also indicated a preference for eco-labels in order to identify sustainably produced wine (Forbes et al., 2009), further research for this target market is recommended.

The consistent positive response towards the Sustainable Eco-Label, by Millennials in the United States, provides labelling insight for sustainably certified wineries worldwide. Although

not explored in this study, extant research has emphasised the importance of certifications that are awarded by a third party organisation, such as SWNZ, in order to be perceived as trustworthy and successful (Harris, 2007; Sogari et al., 2015). The results of the experiment provide support for this claim, as the Sustainable Product Description had less of an effect on the dependent variables when compared to the advertisements without a product description. This result indicates that Millennial consumers' are savvy and are not influenced by uncertified claims indicating sustainable production. In addition, complimenting previous suggestions in literature, it demonstrates that consumers' have confidence in third party certifications (Harris, 2007, Sogari et al., 2015).

Finally, the results of this thesis provide branding insight to wine marketers. The excitement brand personality appealed most to the participants of this study. This result is aligned with previous findings on consumers' preference for wine brand personalities (Boudreaux & Palmers, 2006; Elliot & Barth, 2012). Furthermore, the incorporation of social and experiential attributes into the advertisement increased consumers' intentions, perceptions, and attitudes compared to the advertisements without the presence of people. This finding supports previous research that suggests Millennials are seeking wine brands that are innovative, contemporary, social, and experiential (Hollebeek et al., 2007; Thach & Olsen, 2006). This provides direction for wineries to move away from traditional branding and adopt a brand image which will stand out and catch the attention of Millennial consumers.

5.4.2. Theoretical Implications

The results of this thesis contribute to the research investigating eco-labelling in wine marketing. Specifically, it is the first study to successfully measure consumers' responses to a sustainable eco-label and compared the results to wine advertisements with no evidence of eco-certification. Sogari et al. (2015) claim to be the first practitioners to research sustainable labelled wine, however, their study focused on how environmental values and beliefs shape consumers' attitudes toward sustainably labelled wine. Furthermore, Pomarici and Vecchio (2014) implemented a similar study measuring Millennial consumers' preference and purchase intentions for three wine labels that all contained different sustainable certifications, representing different aspects of sustainability. However, no study to the knowledge of the researcher, has measured the sustainable attributes in comparison to no eco-friendly attributes. Finally, Loureiro (2013) implemented a study to measure the difference between

new eco-friendly and conventional produced wines from Colorado. However, the results of the study were confounded by the fact that consumers' had a preconceptions of wine from the Colorado producing region to be of lower quality (Loureiro, 2013). Moreover, the study did not specify whether the labels were indicating organic, biodynamic, or sustainable production.

In addition, this is the first study to investigate the relationship between specific combinations of variables: Brand Personality, Product Description, and Eco-Label. Furthermore, empirical research has not been conducted in the context of New Zealand wine measuring overseas consumers' responses to a combination of branding and eco-friendly labelling attributes. This research adds to the existing literature on sustainable wine and eco-labelling and the results demonstrate that the presence of a sustainable eco-label consistently evoked positive responses. The experiment implemented in the present study provides a solid basis for replication or reference for future research.

Furthermore, to the knowledge of the researcher, this thesis was the first to employ the Social Brand Personality dimension developed by Spielmann et al. (2016). Whilst the results show that this brand personality was successful in eliciting a positive response from Millennial consumers' when compared to an advertisement without a specific brand personality, the facets of this dimension could be reviewed or further extended. This observation is discussed further in section 5.6.

Finally, the results from this study highlight the need to consider label attributes in relation to one another as opposed to single attributes. This was revealed by the two-way interaction effect between Brand Personality and Eco-Label, which revealed the significant influence of the Sustainable Eco-Label in shaping consumers' quality perceptions regardless of Brand Personality. This result should be considered by researchers seeking to investigate the effects of eco-labels and branding attributes in future research.

5.5. Research Limitations

This research tested the effects of different branding and eco-certification cues in the context of the wine product category. Therefore, the results of this study are not necessarily a generalisation suitably applied to other product categories. Sustainability in general outlines similar principles, however when it is applied in practice to different industries, the aspects covered can be very different, especially in the context of the wine industry. Additionally, the

context of the research was very specific, the results are reflective of Millennial consumers' in the United States responses toward New Zealand wine attributes. Subsequently, the use of the results outside of this context should be exercised with caution as specific cultural differences exist and product-country stereotypes differ by country.

The images selected as the manipulations for the two brand personality variables were somewhat ambiguous of each other. The manipulation check for the Social Brand Personality indicated that consumers could not distinguish a difference between the two conditions. A supplementary focus of the research was to incorporate people in a social setting into the advertisements in order to appeal to the Millennial sample. Although thorough pre-testing was untaken to select the images that represented the two distinct brand personalities, it was noted that both images contained a group of people in a social setting. It was expected the five Social Brand Personality scale items were distinctive and would evoke a perceived difference between the Excitement and Social Brand Personality conditions. However, the results of the Principal Components Analysis led to the scale being reduced from five items to two items. Therefore, the remaining facets, describing the brand as "merry" and "sociable", could have been representative of either image. This limitation was mitigated by employing a third image which was not identified to represent a particular brand personality. This allowed the results of two brand personalities to be compared against a control group in order to draw conclusions.

Another consideration of this study is the use of an experimental design. It is possible that the same effects might not have naturally occurred in a real purchase situation. It is likely that higher involvement in the purchase situation could have led to different results. It is important to note that there are many other cues identified in the literature which have been found to affect consumers' decision making, such as price and promotions, which were not investigated in this research. Furthermore, the unnatural environment in which the advertisement was presented provided limitations. Specifically, the manipulations were viewed online and were isolated from any other media and advertising. Additionally, participants were not given the opportunity to return to previous pages within the experiment which could have affected the evaluation process. In order to limit the effect of this on the results, participants were given two exposures to the advertisement stimuli throughout the experiment. Respondents were required to remain on the pages containing the advertisements for a minimum of 30 seconds

and 10 seconds, respectively. This tactic was employed to ensure participants received adequate exposure to the advertisement stimuli in order to aptly answer the survey questions.

The next limitation refers to the issues of self-selection bias in the sample, which consequently imposes limitations to the extent that the results of this study can be generalised. The sample consisted of 540 participants which is equivalent to 45 participants per manipulated condition. Whilst this sample size is satisfactory, participants were recruited via Amazon's Mechanical Turk, subsequently the sample only consisted of respondents who actively participate in MTurk tasks. Although it cannot be assumed that the results are representative of the general population of males and females aged 21 to 35 years old, samples provided by MTurk are considered to be diverse and as reliable as samples recruited via traditional methods (Buhremester et al., 2011).

With these considerations in mind, it is important to note that within the parameters of this research it is not possible to account for all external factors which may affect participants' intentions, perceptions, and attitudes. This research did take into consideration Product Involvement, Variety Seeking Behaviours, Advertisement Comprehension, Environmentalism, Preference for Local Products, and Country-of-Origin Product Image, which allowed for the confounding effects of these variables to be controlled. However, it is likely that other factors may have influenced the results, such as familiarity with eco-labels or consumption experience.

5.6. Future Research

The limitations of this study provide clear avenues for future research. Firstly, this experiment had a very specific research context which was to measure Millennial consumers' in the United States responses toward New Zealand wine brand attributes. Therefore, the study could be replicated in different contexts including employing wine from a different country or employing a different demographic sample. In addition, identified in the preliminary research is the emerging categories of special attribute wine, most notably organic and low alcohol (Moroney, 2013; Smithers, 2017; Saliba, Ovington, Moran, & Bruwer, 2013; Staff, 2015). Whilst more literature on eco-labelling exists for organic wine, there are still unexplored avenues with regards to these wine categories. For example, most of the research that exists on organic eco-labelled wine is measuring consumer willingness-to-pay for this attribute (e.g. Barber, 2010; Barber et al., 2009; Berghoef & Dodds, 2011; Brugarolas Molla-Bauza et al., 2005; Delmas &

Grant, 2014; Remaud et al., 2008; Vecchio, 2013). To the knowledge of the researcher, no research exists that analyses different branding cues and eco-friendly attributes together.

Furthermore, several studies identified the importance of implementing a holistic and consistent wine brand image (Boudreaux & Palmer, 2007; Orth & Malkewitz, 2008; Sherman & Tuten, 2011). Whilst the parameters of this research did not allow for this concept to be explored further, it is noted that incorporating natural elements into the branding of eco-friendly wine advertisements would be the next step in expanding this research. The experimental design predestined that aspects in the conditions which could subconsciously confound the results had to be avoided. However, the results of this study have concluded that Millennials have indicated a preference towards sustainably eco-labelled wine and the excitement brand personality. Therefore, testing different holistic designs whilst incorporating these most favourable attributes would be the next logical step in extending this research further.

The research implemented one of the recently developed brand personality dimensions, social, proposed by Spielmann et al. (2016). In both the initial pre-test and final experiment, the construct was reduced from five items to two items. This result somewhat confounded the manipulation checks of this study, as the two items retained were applicable to more than one image. Extending this scale to include more traits would give researchers seeking to employ this scale more opportunity to apply it in future research. For example, Aaker's (1997) brand personality dimensions contain between two to four facets each, and each of the facets contains two to three traits. However, the results of this study have indicated that the social brand personality did elicit a positive response when compared to an image with no brand personality. Spielmann et al. (2016) also proposed another wine brand personality, philosophical. This provides an opportunity to investigate the philosophical personality dimension proposed by Spielmann et al. (2016) in a similar experiment.

5.7. Conclusion

The results of this research have direct practical implications for the New Zealand wine industry and theoretical implications for wine marketing research. This experiment highlighted the importance of sustainable eco-labels in shaping Millennial consumers' intentions, perceptions, and attitudes. Furthermore, it emphasises the role of brand personality as an indicator of

quality for conventional or unlabelled eco-friendly wine. These findings provide an opportunity for SWNZ to develop an eco-label in order to differentiate New Zealand wine in a competitive overseas markets. Finally, the results of this study add to the existing literature on sustainable wine marketing and eco-labelling, and provide theoretical and practical directions for future research within the area of wine marketing and eco-labelling.

6. Reference List

Aaker, J. L. (1997). Dimensions of brand personality. *Journal of Marketing Research, 34*(3), 347-356.

Agnoli, L., Begalli, D., & Capitello, R. (2011). Generation Y's perception of wine and consumption situations in a traditional wine-producing region. *International Journal of Wine Business Research, 23*(2), 176-192.

Andersen, M., & Skjoett-Larsen, T. (2009). Corporate social responsibility in global supply chains. *Supply Chain Management: An International Journal, 14*(2), 75-86.

Ballantine, P. W., & Yeung, C. A. (2015). The effects of review valence in organic versus sponsored blog sites on perceived credibility, brand attitude, and behavioural intentions. *Marketing Intelligence & Planning, 33*(4), 508-521.

Barber, N. (2009). Wine consumption information search: Gender differences and implications for the hospitality industry. *Tourism and Hospitality Research, 9*(3), 250-269.

Barber, N. (2010). "Green" wine packaging: Targeting environmental consumers. *International Journal of Wine Business Research, 22*(4), 423-444.

Barber, N. (2012). Consumers' intention to purchase environmentally friendly wines: A Segmentation Approach. *International Journal of Hospitality & Tourism Administration, 13*(1), 26-47.

Barber, N., & Almanza, B. (2006). Influence of wine packaging on consumers' decision to purchase. *Journal of Foodservice Business Research, 9*(4), 83-98.

Barber, N., Dodd, T., & Ghiselli, R. (2008). Capturing that younger wine consumer. *Journal of Wine Research, 19*(2), 123-141.

Barber, N., Ismail, J., & Taylor, D. C. (2007). Label fluency and consumer self-confidence. *Journal of Wine Research, 18*(2), 73-85.

Barber, N., Taylor, C., & Strick, S. (2009). Wine consumers' environmental knowledge and attitudes: Influence on willingness to purchase. *International Journal of Wine Research*, 1, 59-72.

Batt, P. J., & Dean, A. (2000). Factors influencing the consumer's decision. *Australian & New Zealand Wine Industry Journa*l, *15*(4), 34-41.

Battersby, S. (2015, September 25). Marlborough: Where the wine flows. *New Zealand Herald.* Retrieved from http://www.nzherald.co.nz/travel/news/article.cfm?c_id=7&objectid=11517013

Belk, R. W. (1988). Posessions and the extended self. *Journal of Consumer Research, 15*(2), 139-168.

Berghoef, N., & Dodds, R. (2011). Potential for sustainability eco-labeling in Ontario's wine industry. *International Journal of Wine Business Research, 23*(4), 298-317.

Berkinsky, A. J., Huber, G. A., & Lenz, G. S. (2013). Evaluating online labor markets for experimental research: Amazon.com's Mechanical Turk. *Political Analysis, 20*(3), 351-368.

Bernabéu, R., Díaz, M., Olivas, R., & Olemda, M. (2012). Consumer preferences for wine applying best-worst scaling: A Spanish case study. *British Food Journal, 114*(9), 1228-1250.

Bilkey, W. J., & Nes, E. (1982). Country-of-origin effects on product evaluations. *Journal of Internation Business Studies*, 13(1), 89-100.

Boudreaux , C. A., & Palmer, S. E. (2007). A charming little Cabernet: Effects of wine label design. *International Journal of Wine Business Research, 19*(3), 170-186.

Brodie, R. J., & Benson-Rea, M. (2016). Country of origin branding: An integrative perspective. *Journal of Product & Brand Management, 25*(4), 322-336.

Brown, C. (2003). Consumers' preferences for locally produced food: A study in southeast Missouri. *American Journal of Alternative Agriculture, 18*(4), 213-224.

Bruner, G. C. (2009). Marketing scales handbook*: A compilation of multi-item measures for consumer behaviour and advertising research* (Vol. 5). Fort Worth, TX: GCBII Productions, LLC.

Bruner, G. C. (2012). Marketing scales handbook*: A compilation of multi-item measures for consumer behaviour and advertising research* (Vol. 6). Fort Worth, TX: GCBII Productions, LLC.

Bruner, G. C. (2013). Marketing scales handbook*: Multi-item measures for consumer insight research* (Vol. 7). Fort Worth, TX: GCBII Productions, LLC.

Bruwer, J. (2004). The love affair of generation - X consumers with the winery cellar door. *The Australian & New Zealand Grapegrower & Winemarker*, 19-23.

Bruwer, J., & Li, E. (2007). Wine-Related Lifestyle (WRL) market segmentation: Demographic and behavioural factors. *Journal of Wine Research, 18*(1), 19-34.

Bruwer, J., Li, E., & Reid, M. (2002). Segmentation of the Australian wine market using a wine-related lifestyle approach. *Journal of Wine Reasearch, 13*(3), 217-242.

Bruwer, J., Saliba, A., & Miller, B. (2011). Consumer behaviour and sensory preference differences: Implications for wine product marketing. *Journal of Consumer Marketing, 28*(1), 5-18.

Buhrmester, M., Kwang, T., & Gosling, S. D. (2011). Amazon's Mechanical Turk a new source of inexpenseive, yet high-quality data? *Perspectives on Psychological Science, 6*(1), 3-5.

Carrigan, M., & Attalla, A. (2001). The myth of the ethical consumer - do ethics matter in purchase behaviour? *Journal of Consumer Marketing, 18*(7), 560-578.

Casini, L., Cavicchi, A., Corsi, A., & Santini, C. (2010, June). *Hopelessly devoted to sustainability: Marketing the challenges to face in the wine business.* Paper presented at the 119th EAAE Seminar 'Sustainability in the Food Section: Rethinking the Relationship between the Agro-Food System and the Natural, Social, Economic and Institutional Environments', Capri, Italy.

Centers for Disease Control and Prevention. (2017). *Alcohol and public health*. Retrieved from: https://www.cdc.gov/alcohol/fact-sheets/minimum-legal-drinking-age.htm

Chrea, C., Melo, L., Evans, G., Forde, C., Delahunty, C., & Cox, D. (2011). An investigation using three approaches to understand the influence of extrinsic product cues on consumer behaviour: An example of Australian wines. *Journal of Sensory Studies, 26*, 13-24.

Chrysochou, P., Krystallis, A., Mocanu, A., & Lewis, R. L. (2012). Generation Y preferences for wine: An exploratory study of the US market applying best-worst scaling. *British Food Journal, 114*(4), 2012.

Clemens, R. L., & Babcock, B. A. (2004). *Country of Origin as a brand: The case of New Zealand lamb.* MATRIC Briefing Papers.

Cogin, J. (2012). Are generational difference in work values fact or fiction? Multi-country evidence and implications. *The International Journal of Human Resource Management, 23*(11), 2268-2294.

Constellation Wines U.S. (2005, October 25). Constellation Wines U.S releases results of landmark consumer study. *Cision PR Newswire*. Retrieved from https://www.prnewswire.com/news-releases/constellation-wines-us-releases-results-of-landmark-consumer-study-55558297.html

Coulter, R. A., Price, L. L., & Feick, L. (2003). Rethinking the origins of involvement and brand commitment: Insights from Postsocialist Central Europe. *Journal of Consumer Research, 30*, 151-169.

Delmas, M. (2010). *Perception of eco-labels: Organic and biodynamic wines.* Research Project, University of California, Institute of the Environment and Anderson School of Management, Los Angeles, CA.

Delmas, M. A., & Grant, L. E. (2014). Eco-labelling strategies and price-premium: The wine industry puzzle. *Business & Society, 53*(1), 6-44.

Dodd, T., Laverie, D., Wilcox, J., & Duhan, D. (2005). Differential effects of experience, subjective knowledge, and objective knowledge on source of information used in consumer wine purchasing. *Journal of Hospitality & Tourism Research, 29*(1), 3-19.

Dodds, R., Graci, S., Ko, S., & Walker, L. (2013). What drives environmental sustainability in the New Zealand wine industry? *International Journal of Wine Business Research, 25*(3), 164-184.

Doyle, J. R., & Bottomley, P. A. (2004). Font appropriateness and brand choice. *Journal of Business Research, 57*(8), 873-880.

Edell, J. A., & Staelin, R. (1983). The information processing of pictures in print advertisements. *Journal of Consumer Research, 10*(1), 45-61.

Elkington, J. (1997). Cannibals with forks. *The Triple bottom Line of 21st century.* Paris, France: Capstone Publishing.

Elliot, S., & Barth, J. (2012). Wine label design and personality preferences of Millennials. *Journal of Product & Brand Management, 21*(3), 183-191.

Erikson, E. H., & Erikson, J. M. (1988). *The life cycle completed (extended version).* New York, NY: WW Norton & Company.

Euromonitor. (2016). *Wine in New Zealand.* Retrieved from http://www.portal.euromonitor.com.ezproxy.canterbury.ac.nz/portal/analysis/tab

Euromonitor. (2017a). *Wine in New Zealand.* Retrieved from http://www.portal.euromonitor.com.ezproxy.canterbury.ac.nz/portal/analysis/tab

Euromonitor. (2017b). *Wine in the US*. Retrieved from http://www.portal.euromonitor.com.ezproxy.canterbury.ac.nz/portal/analysis/tab

Fairfax Media. (2011, July 13). Wine taps vegan market. *Stuff*. Retrieved from http://www.stuff.co.nz/life-style/food-wine/5273887/Wine-taps-vegan-market

Feldman, D. C., Bearden, W. O., & Hardesty, D. M. (2006). Varying the content of job advertisments: The effects of message specificity. *Journal of Advertising, 35*(1), 123-141.

Flint, D. J., & Golicic, S. L. (2009). Searching for competitive advantage through sustainability: A qualitative study in the New Zealand wine industry. *International Journal of Physical Distribution & Logistics Management, 39*(10), 841-860.

Forbes, S. L., Cohen, D. A., Cullen, R., Wratten, S. D., & Fountain, J. (2009). Consumer attitudes regarding environmentally sustainable wine: An exploratory study of the New Zealand marketplace. *Journal of Cleaner Production, 17*(13), 1195-1199.

Fotopoulos, C., Krystallis, A., & Ness, M. (2003). Wine produced by organic grapes in Greece: Using means-end chains analysis to reveal organic buyers' purchasing motives in comparison to the non-buyers. *Food Quality & Preference, 14*(7), 549-566.

Fountain, J., & Lamb, C. (2011). Generation Y as young wine consumers in New Zealand: How do they differ from generation X? *International Journal of Wine Business Research, 23*(2), 107-124.

Gabzdylova, B., Raffensperger, J. F., & Castka, P. (2009). Sustainability in the New Zealand wine industry: Drivers, stakeholders and practices. *Journal of Cleaner Production, 17*(11), 992-998.

Garcia, T., Barrena, R., & Ildefonso, G. (2013). The wine consumption preferences of young people: A Spanish case study. *International Journal of Wine Business Research, 25*(2), 94-107.

Gil, J. M., & Sánchez, M. (1997). Consumer preferences for wine attributes: A conjoint approach. *British Food Journal, 99*(1), 3-11.

Giner-Sorolla, R. (1999). Affect in attitude. In S. C. Trope, *Dual-Process Theories in Social Psychology* (pp. 441-461). New York, NY: The Guildford Press.

Ginon, E., Ares, G., Esteves dos Santos Laboissière, L. H., Brouard, J., Issanchou, S., & Deliza, R. (2014). Logos indicating environmental sustainability in wine production: An exploratory study on how do Burgundy wine consumers' perceive them. *Food Research International, 62*, 837-845.

Girard, T., & Dion, P. (2010). Validating the search, experience, and credence product classfification framework. *Journal of Business Research, 63*(9-10), 1079-1087.

Glass, A. (2007). Understanding generational differences for competitive success. *Industrial and Commercial Training, 39*(7), 98-103.

Goodman, S. (2009). An internationl comparision of retail consumers wine choice. *International Journal of Wine Business Research, 21*(1), 41-49.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis* (7th ed.). Upper Saddle River, NJ: Pearson Education.

Hall, C. M., & Mitchell, R. (2006). Wine marketing*: A practical guide.* Oxford, UK: Elsevier.

Hall, C. M., Mitchell, R., & Treloar, P. (2004,). *Wine tourism and the Generation Y market: Any possibilities?* Paper presented at CAUTHE conference, Brisbane, Australia.

Harris, S. M. (2007). Does sustainability sell? Market responses to sustainability certification. *Management of Environmental Quality: An International Journal, 18*(1), 50-60.

Henley, C. D., Fowler, D. C., Yuan, J., Stout, B. L., & Goh, B. K. (2011). Label design: Impact on Millennials' perception of wine. *International Journal of Wine Business research, 23*(1), 7-20.

Higgins, L., & Wolf, M. M. (2016). Millennials as luxury wine buyers in the United States? *International Journal of Wine Business Research, 28*(3), 190-205.

Higie, R. A., & Feick, L. F. (1989). Eduring involvement: Conceptual and measurement issues. In T. K. Srull, *Advances in Consumer Research* (Vol. 16, pp. 690-696). Provo, Utah: Association for Consumer Research.

Hjelmar, U. (2011). Consumers' purchase of organic food products. A matter of convenience and reflexive practices. *Appetite, 56*(2), 336-344.

Hollebeek, L. D., Jaeger, S. R., Brodie, R. J., & Balemi, A. (2007). The influence of involvement on purchase intention for new world wine. *Food Quality and Preference, 18*, 1033-1049.

Horton, J. J., Rand, D. G., & Zeckhauser, R. J. (2011). The online laboratory: Conducting experiment in a real labor market. *Experimental Economics, 14*(3), 399-425.

Inglehart, R. (1997). Modernization and postmodernization: *Cultural, economic, and political chance in 43 societies.* Princeton, NJ: Princeton University Press.

Iyer, E. S. (1988). The influence of verbal content and relative newness on the effectiveness of comparative advertising. *Journal of Advertising, 17*(3), 15-21.

Johar, G. V. (1995). Consumer involvement and deception from implied advertising claims. *Journal of Marketing Research, 32*(3), 267-279.

Johnson, J. A., & Lopes, L. (2008). The intergenerational workforce, revisited. *Organizational Developement Journal, 26*(1), 31-36.

Johnson, R., & Bruwer, J. (2007). Regional brand image and perceived wine quality: The consumer perspective. *International Journal of Wine Business Research, 19*(4), 276-297.

Jones, J. M. (2006, July 31). U.S. drinkers consuming alcohol more regularly. *Gallup News*. Retrieved from http://news.gallup.com/poll/23935/us-drinkers-consuming-alcohol-more-regularly.aspx

Kalik, R. G. (2011, September). *Best practices in wine regulation: Introduction to the World Wine Trade Group* [PowerPoint slides]. Presented at Seminar on Key Issues in Wine Reguation, San Franscio, CA. Retrieved from http://slideplayer.com/slide/6664688/

Karma Cola. (2017). *About*. Retrieved from http://karmacola.co.nz/about

Keller, K. L., & Aaker, D. A. (1992). The effects of sequential introduction of brand extentions. *Journal of Marketing Research*, 35-50.

Kelley, K., Hyde, J., & Bruwer, J. (2015). U.S. wine consumer preferences for bottle characteristics, back label extrinsic cues and wine consumption: A conjoint analysis. *Asia Pacific Journal of Marketing and Logistics*, 27(4), 516-535.

Kim, S., Haley, E., & Koo, G.Y. (2009). Comparison of the paths from consumer involvement types of as responses between corporate advertising and product advertising. *Journal of Advertising, 38*(2), 67-80.

Kisielius, J. (1982). *Detecting and explaining vividness effects in attitudinal judgement.* Unpublished Doctoral Dissertation, Northwestern University, Evanston, IL.

Kleine, R. E., Kleine, S. S., & Kernan, J. B. (1993). Mundane consumption and the self: A social-identity perspective. *Journal of Consumer Psychology, 2*(3), 209-235.

Klohr, B., Fleuchaus, R., & Theuvsen, L. (2013, June). *Sustainability: Implementation programs and communication in leading wine producing countries.* Paper presented at the 7th International Conference of the Academy of Wine Business Research (AWBR), 1215. St. Catharines, ON.

Kozup, J. C., Creyer, E. H., & Burton, S. (2003). Making healthy food choices: The influences of health claims and nutrition information on consumer's evaluations of packaged food products and restaurant menu items. *Journal of Marketing, 67*(2), 19-34.

Larson, A. (2012). *Generation Yine: The Millennial generation and wine label trends*. Senior Project, California Polytechnic State University, San Luis Obispo, CA.

Lawrence, B., Fournier, S., & Frédéric, B. (2013). When companies don't make the ad: A multi-method inquiry into the differential effectiveness of consumer-generated advertising. *Journal of Advertising, 42*(4), 292-307.

Lee, Y. H. (2000). Manipulating ad message involvement through information expectancy: Effects on attitude evaluation and confidence. *Journal of Advertising, 29*(2), 29-43.

Lepkowska-White, E., Brashear, T. G., & Weinberger, M. G. (2003). A test of ad appeal effectiveness in Poland and the United States: The interplay of appeal, product and culture. *Journal of Advertising, 32*(3), 57-67.

Liu, S. S., & Johnson, K. F. (2005). The automatic country-of-origin effects on brand judgments. *Journal of Advertising, 34*(1), 87-97.

Loureiro, M. L. (2003). Rethinking new wines: Implications of local and environmentally friendly labels. *Food Policy, 28*9(5-6), 547-560.

Magistris, T. d., Groot, E., Gracia, A., & Albisu, L. M. (2011). Do Millennial generation's wine preferences of the "New World" differ from the "Old World"? *International Journal of Wine Business Research, 23*(2), 145-160.

Malhotra, N. K. (1981). A scale to measure self-concepts, person concepts, and product concepts. *Journal of Marketing Research, 18*(4), 456-464.

Mann, S., Ferjani, A., & Reissig, L. (2012). What matters to consumers of organic wine? *British Food Journal, 114*(2), 272-284.

Mitchell, A. A., & Olson, J. C. (1981). Are product attribute beliefs the only mediators of advertising effects on brand attitude? *Journal of Marketing Research, 18*(3), 318-323.

Mollá-Bauzá, M. B., Martínez, L. M.-C., Poveda, A. M., & Pérez, M. R. (2005). Determination of the surplus that consumers are willing to pay for an organic wine. *Spanish Journal of Agricultural Research, 3*(1), 43-51.

Morgan, N., Pritchard, A., & Piggott, R. (2002). New Zealand, 100% pure. The creation of a powerful niche destination brand. *The Journal of Brand Management, 9*(4), 335-354.

Moroney, R. (2013, November 28). $17m boost for 'lifestyle wines'. *The New Zealand Herald.* Retrieved from http://www.nzherald.co.nz/hawkes-bay-today/news/article.cfm?c_id=1503462&objectid=11164084

Morrish, S. C., & Lee, C. (2011). Country of origin as a source of sustainable competitive advantage: The case for international higher education institutions in New Zealand. *Journal of Strategic Marketing, 19*(6), 517-529.

Mueller, S., & Remaud, H. (2010, February). *Are Australian wine consumers becoming more environmentally conscious?* Paper presented at the 5th International Conference of the Academy of Wine Business Research, Auckland, New Zealand.

Mueller, S., & Szolnoki, G. (2010). The relative influence of packaging, labelling, branding, and sensory attributes on liking and purchase intent: Consumers differ in their responsiveness. *Food Quality and Preference, 21*(7), 774-783.

Mueller, S., Remaud, H., & Chabin, Y. (2011). How strong and generalisable is the Generation Y effect? A cross-cultural study for wine. *International Journal of Wine Business Research, 23*(2), 125-144.

New Zealand Wine. (2013). *New Zealand Winegrowers Labelling Guide.* Retrieved from: https://issuu.com/nzwine/docs/nzw_labelling_guide_2013_for_web

New Zealand Wine. (2016). *Sustainability Report 2016.* Retrieved from http://www.nzwine.com/sustainability/about

New Zealand Wine. (2017a). *Annual Report 2017.* Retrieved from https://www.nzwine.com/media/6600/nzw-annual-report-2017.pdf

New Zealand Wine. (2017b). *Sustainable Winegrowing New Zealand*. Retrieved from http://www.nzwine.com/sustainability/sustainable-winegrowing-new-zealand/

New Zealand Wine. (2017c). *What sustainability means to us*. Retrieved from https://www.nzwine.com/en/sustainability/what-sustainability-means-to-us/

New Zealand Wine. (2017d). *Wine exports reach record high.* Retrieved from https://www.nzwine.com/media/6602/wine-exports-reach-record-high.pdf

Nicholson, T. (2017, August 28). Organic wine - a hard sell? *Rural News Group*. Retrieved from https://www.ruralnewsgroup.co.nz/wg-general-news/item/12412-organic-wine-a-hard-sell

Nielsen. (2014, August 11). *Generations on tap: Beverage alcohol purchases vary by age group.* Retrieved from http://www.nielsen.com/us/en/insights/news/2014/generations-on-tap-beverage-alcohol-purchases-vary-by-age-group.html

Nielsen. (2015, February 19). *Grapes of worth: How supermarkets are becoming local wine shops*. Retrieved from http://www.nielsen.com/us/en/insights/news/2015/grapes-of-worth-how-supermarkets-are-becoming-local-wine-shops.html

Nielsen. (2017, August 31). *How package design attracts today's wine consumer.* Retrieved from http://www.nielsen.com/us/en/insights/news/2017/how-package-design-attracts-todays-wine-consumer.html

Nimon, W., & Beghin, J. (1999). Are eco-labels valuable? Evidence from the apparel industry. *American Journal of Agricultural Economics, 81*, 801-811.

Nowak, L., Thach, L., & Olsen, J. E. (2006). Wowing the Millennials: Creating brand equity in the wine industry. *Journal of Product & Brand Management, 15*(5), 316-323.

Olsen, J. E., Atkin, T., Thach, L., & Cueller, S. S. (2015). Variety seeking by wine consumers in the southern states. *International Journal of Wine Business Research*, *27*(4), 260-280.

Olsen, J. E., Thach, L., & Nowak, L. (2007). Wine for my generation: Exploring how US wine consumers are socialised to wine. *Journal of Wine Research, 18*(1), 1-18.

Olsen, J., Thach, L., & Hemphil, L. (2012). The impact of environmental protection and hedonistic values on organic wine purchases. *International Journal of Wine Business Research, 24*(1), 47-67.

Ophuis, P. A., & Van Trijp, H. C. (1995). Perceived quality: A market driven and consumer oriented approach. *Food Quality and Preference, 6*(3), 177-183.

O'Quin, K., & Besemer, S. P. (1989). The development, reliability, and validity of the revised creative product semantic scale. *Creativity Research Journal, 2*(4), 267-278.

O'Rand, A., & Krecker, M. L. (1990). Concepts of the life cycle: Their history, meanings, and uses in the social sciences. *Annual Review of Sociology, 16*(1), 241-262.

Orth, U. R., & Malkewitz, K. (2008). Holistic package design and consumer brand impressions. *Journal of Marketing, 72*(3), 64-81.

Pallant, J. (2011). *SPSS: Survival Manual* (4th ed.). Crows Nest, NSW: Allen & Unwin.

Pannett, R. (2015, May 1). Why low calorie wines sour on Amercian shelves. *The Wall Street Journal*. Retrieved from https://www.wsj.com/articles/why-low-calorie-wines-sour-on-american-shelves-1430515980

Paolacci, G., Chandler, J., & Ipeirotis, P. G. (2010). Running experiments on Amazon Mechanical Turk. *Judgement and Decision Making, 5*(5), 411-419.

Parameswaran, R., & Pisharodi, R. M. (1994). Facets of country of origin image: An emprical assessment. *Journal of Advertising, 23*(4), 43-56.

Pomarici, E., Vecchio, R., & Verneau, F. (2014). The future of sustainable wine? A reasoned review and discussion of ongoing programs around the world. *Calitatea, 15*(S1), 123.

Qenani-Petrela, E., Wolf, M., & Zuckerman, B. (2007). Generational differences in wine consumption. *Journal of Food Distribution Research, 38*(1), 119-127.

Remaud, H., Mueller, S., Chvyl, P., & Lockshin, L. (2008). *Do australian wine consumers value organic wine?* Paper presented at the 4th International Conference of the Academy of Wine Business Research, Siena, Italy.

Renton, T., Manktelow, D., & Kingston, C. (2002). *Sustainable Winegrowing: New Zealand's place in the world.* Paper presented at the 8th Annual Romeo Bragato Conference. Christchurch, New Zealand.

Ritchie, C. (2011). Young adult interaction with wine in the UK. *International Journal of Contemporary Hospitality Management, 23*(1), 99-114.

Rocchi, B., & Stefani, G. (2006). Consumers' perception of wine packaging: A case study. *International Journal of Wine Marketing, 18*(1), 33-44.

Ross, K., & Golino, D. (2008). Wine grapes go green: The sustainable viticulture story. *California Agriculture*, 62(4), 125-126.

Rossiter, J. R., & Percy, L. (1978). *A visual and verbal loop theory of the classical effect of advertising on product attitude.* Working paper, University of Pennsylvania, Philadelphia, PL.

Saliba, A., Ovington, L., Moran, C. C., & Bruwer, J. (2013). Consumer attitudes to low alcohol wine: An Australian sample. *Wine & Viticulture Journal*, 58-61.

Santini, C., Cavicchi, A., & Casini, L. (2013). Sustainability in the wine industry: Key questions and research trends. *Agricultural and Food Economics, 1*(1), 1-9.

Schewe, C. D., & Meredith, G. (2004). Segmenting global markets by generational cohorts: Determining motivations by age. *Journal of Consumer Behaviour, 4*(1), 51-63.

Schuhwerk, M. E., & Lefkoff-Hagius, R. (1995). Green or non-green? Does type of appeal matter when advertising a green product? *Journal of Advertising, 24*(2), 45-54.

Shanahan, K. J., & Hopkins, C. D. (2007). Truths, half-truths and deception: Perceived social responsibility and intent to donate for a nonprofit using implicature, truth, and duplicity in print advertising. *Journal of Advertising, 36*(2), 33-48.

Sharples, L. (2000). Organic wines - The UK market: A shift from 'niche market' to 'mainstream' position? *International Journal of Wine Marketing, 12*(1), 30-41.

Sherman, S., & Tuten, T. (2011). Message on a bottle: The wine label's influence. *International Journal of Wine Business Research, 23*(1), 221-234.

Sinha, P., & Akoorie, M. E. (2010). Sustainable environmental practices in the New Zealand wine industry: An analysis of perceived institutional pressures and the role of exports. *Journal of Asia-Pacific Business, 11*(2), 50-74.

Sirieix, L., & Remaud, H. (2010). *Consumer perceptions of eco-friendly vs. conventional wines in Australia.* Paper Presented at 5th International Aademy of WIne Business Research Conference, Auckland, New Zealand.

Skaggs, R., Falk, C., Almonte, J., & Cárdenas, M. (1996). Product-country images and international food marketing: Relationships and research needs. *Agribusiness, 12*(6), 593-600.

Smith, R. E., Chen, J., & Yang, X. (2008). The impact of advertising creativity on the hierarchy of effects. *Journal of Advertising, 37*(4), 47-61.

Smithers, R. (2017, April 3). Grape Britian: UK merry on organic wine as sales soar. *The Guardian.* Retrieved from https://www.theguardian.com/environment/2017/apr/03/grape-britain-uk-merry-on-organic-wine-as-sales-hit-nearly-6m

Sogari, G., Corbo, C., Macconi, M., Menozzi, D., & Mora, C. (2015). Consumer attitude towards sustainable-labelled wine: An exploratory approach. *International Journal of Wine Business Research*, *27*(4) 312-328.

Sogari, G., Mora, C., & Menozzi, D. (2016). Sustainable wine labeling: A framework for definition and consumers perception. *Agriculture and Agricultural Science Procedia, 8*, 58-64.

Spears, N., & Singh, S. N. (2004). Measuring attitude toward the brand and purchase intention. *Journal of Current Issues & Research in Advertising, 26*(2), 53-66.

Spielmann, N., Babin, B. J., & Verghote, C. (2016). A personality-based measure of the wine consumption experience for millennial consumers. *International Journal of Wine Business Research, 28*, 228-245.

Sprott, D. E., & Shimp, T. A. (2004). Using product sampling to augment the percieved quality of store brands. *Journal of Retailing, 80*(4), 305-315.

St James, M., & Christodoulidou, N. (2011). Factors influencing wine consumption in Southern California consumers. *International Journal of Wine Business Research , 23*(1), 36-48.

Steenkamp, J.B. E. (1990). Conceptual model of the quality perception process. *Journal of Business Reserch, 21*(4), 309-333.

Stolz, H., & Schmid, O. (2008, June). *Consumer attitudes and expectations of organic wine.* Paper presented at the 16th IFOAM Ogranic World Congress, Modena, Italy.

Szegota, S. (2017, May 3). Wine Exports to the USA Surpass $500 million for the first time. *New Zealand Wine.* Retrieved from http://www.nzwine.com/discussion/general/wine-exports-to-the-usa-surpass-500-million/

Szolnoki, G. (2013). A cross-national comparison of sustainability in the wine industry. *Journal of Cleaner Production, 53*, 243-251.

Szolnoki, G., Bosman, J., Samara, O., Iselborn, M., Ferrigato, A., Tari, K., & Egea, N. G. (June, 2011). *A cross-cultural comparison of sustainability in the wine industry.* Paper presented at the 6th AWBR International Conference, Bordeaux, France.

Tajitus, N. (2015, March 27). It's in the Grape: NZ vinters pioneer low-aclohol techniques. *Reuters.* Retrieved from https://www.reuters.com/article/newzealand-wine/its-in-the-grape-nz-vintners-pioneer-low-alcohol-techniques-idUSL3N0WO0O120150326

Teagle, J., Mueller, S., & Lockshin, L. (2010). *How do millennials' wine attitudes and behaviour differ from other generations?* Paper presented at the 5th International Academy of Wine Business Research Conference, Auckland, New Zealand.

Thach, E. C., & Olsen, J. E. (2006). Marketing Segment Analysis to Target Young Adult Wine Drinkers. *Aribusiness, 22*(3), 307-322.

Theunissen, M. (2017, April 22). How NZ wine is taking the US by storm. *New Zealand Herald*. Retrieved from http://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=11842019

Thomas, A., & Pickering, G. (2003). The importance of wine label information. *International Journal of Wine Marketing, 15*(2), 58-74.

Van Trijp, H. C., & Steenkamp, J.-B. E. (1992). Consumers' variety seeking tendency with respect to foods: Measurement and managerial implications. *European Review of Agricultural Economics, 19*(2), 181-195.

Vecchio, R. (2013). Determinants of willingness-to-pay for sustainable wine: Evidence from experimental auctions. *Wine Economics and Policy 2*(2), 85-92.

Wagner, T., Lutz, R. J., & Weitz, B. A. (2009). Corporate hypocrisy: Overcoming the threat of inconsistent corporate social responsibility perceptions. *Journal of Marketing, 73*(6), 77-91.

Wesley, N., & Beghin, J. (1999). Are eco-labels valuable? Evidence from the apparel industry. *American Journal of Agricultural Economics, 81*(4), 801-811.

White, A., & Smith, B. L. (2001). Assessing advertising creativity using the creative product semantic scale. *Journal of Advertising Research*, *41*(6), 27-34.

White, S. K. (2015). *Consumption motives for luxury fashion products: Effect of social comparison and vanity of purchase behaviour.* Masters thesis, University of Canterbury, Christchurch, New Zealand. Retrieved from https://ir.canterbury.ac.nz/handle/10092/10788

Wiedmann, K.-P., Behrens, S., Klarmann, C., & Hennigs, N. (2014). Customer value perception: Cross-generational preferences for wine. *British Food Journal, 116*(7), 1128-1142.

Wine Business. (2016, February 9). *Wine Market Council unveils new stats on consumer wine consumption habits*. Retrieved from https://www.winebusiness.com/news/?go=getArticle&dataid=164519

Wine Institute. (2011, June). *Code of advertising standards*. Retrieved from http://www.wineinstitute.org/initiatives/issuesandpolicy/adcode/details

Wine Institute. (2014). *California wine sales grow 3% by volume and 5% by value in the U.S. in 2013.* Retrieved from https://www.wineinstitute.org/resources/pressroom/04242014

Wine Institute. (2017, July 12). *Wine consumption in the U.S*. Retrieved from http://www.wineinstitute.org/resources/statistics/article86

Wine Institute. (2018, January 25). *First annual certified sustainable report released by California Sustainable Winegrowing Alliance highlights growth and adoption*. Retrieved from http://www.wineinstitute.org/resources/pressroom/01252018

Wolf, M. M., Carpenter, S., & Qenani-Petrela, E. (2005). A comparison of X, Y and Boomer generation wine consumers in California. *Journal of Food Distribution Research, 36*(1), 186-191.

Worsley, R. E. (2015). *The effect of goal orientation, model idealisation, and message framing on the effectiveness of cosmetics advertising.* Masters Thesis, University of Canterbury, Christchurch, New Zealand. Retrieved from https://ir.canterbury.ac.nz/handle/10092/10574

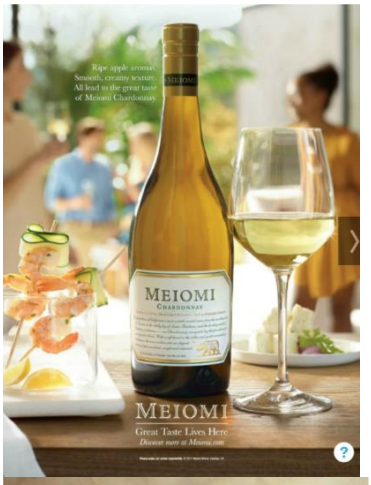
Zaichkowsky, J. L. (1985). Measuring the involvement construct. *Journal of Consumer Research, 12*(3), 341-352.

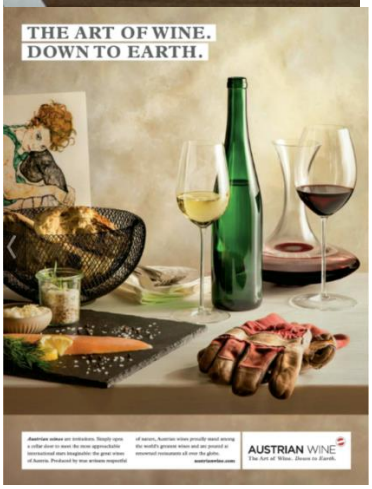
Zucca, G., Mitry, D. J., & Smith, D. E. (2009). Sustainable viticulture and winery practices in California: What is it, and do consumers care? *International Journal of Wine Research*, *2*(1), 189-194

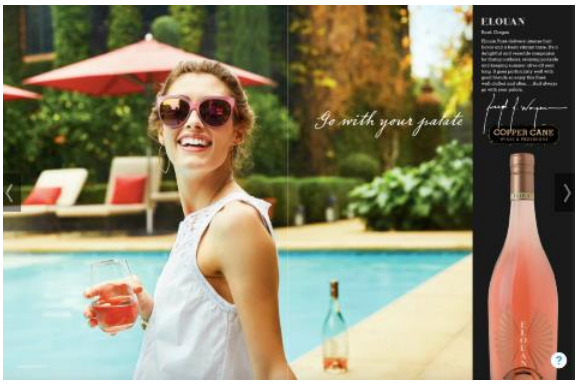
7. Appendices

7.1. Stimuli Development

7.1.1. Magazine Advertisements







7.1.2. Image Selection for Pre-study

7.1.2.1. Social Brand Personality Images

Image 1

Image 2

Image 3

Image 4

Image 5

7.1.2.2. Excitement Brand Personality Images

Image 1

Image 2

Image 3

Image 4

Image 5

7.1.2.3. Social and Excitement Brand Personality Image Pairs

Pair 1

Social Image

Excitement Image

Pair 2

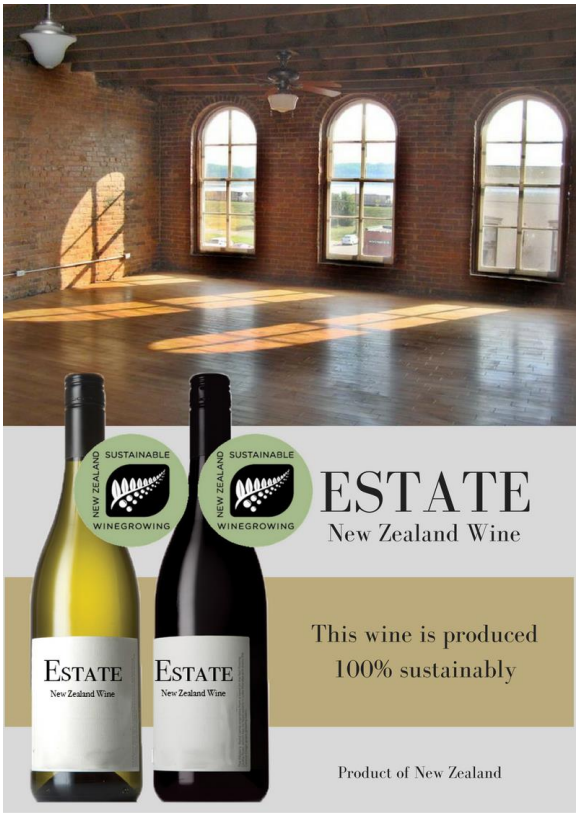
Social Image

Excitement Image

7.2. Final Stimuli

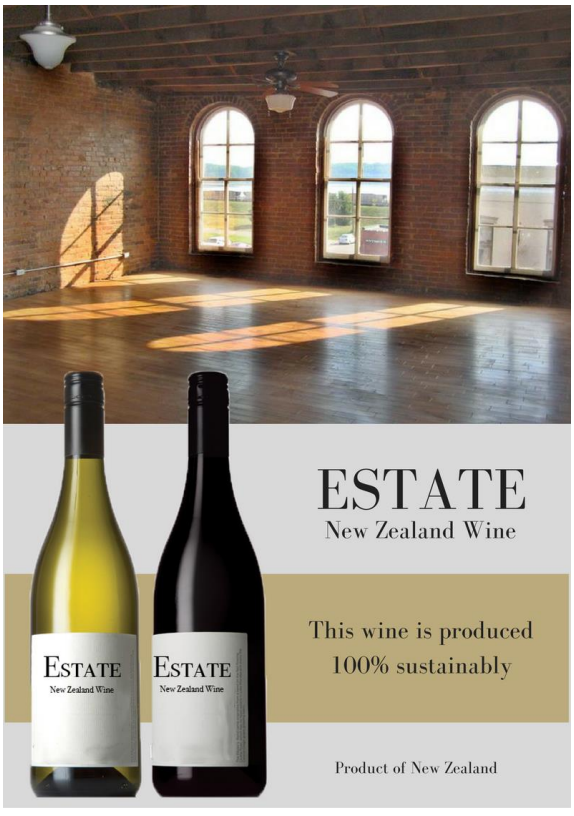
7.2.1. Advertisements with No Brand Personality

Condition 1

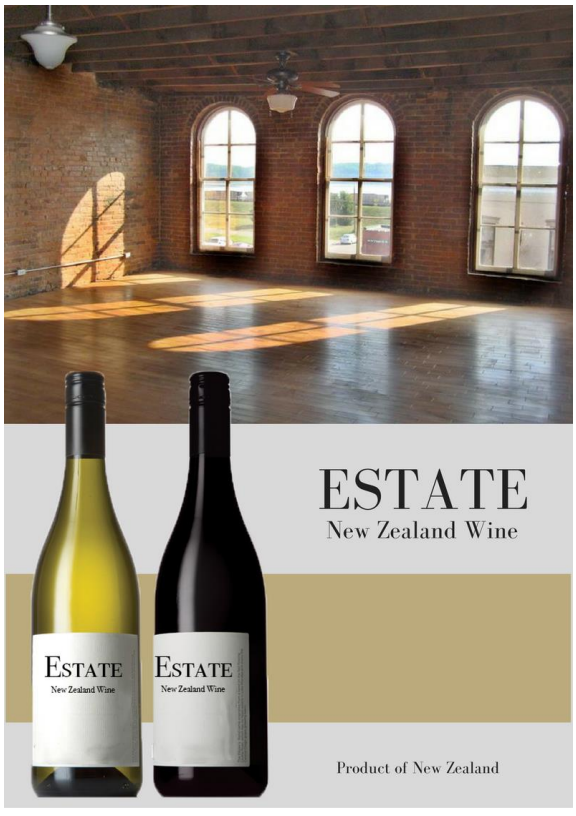


Condition2

Condition3



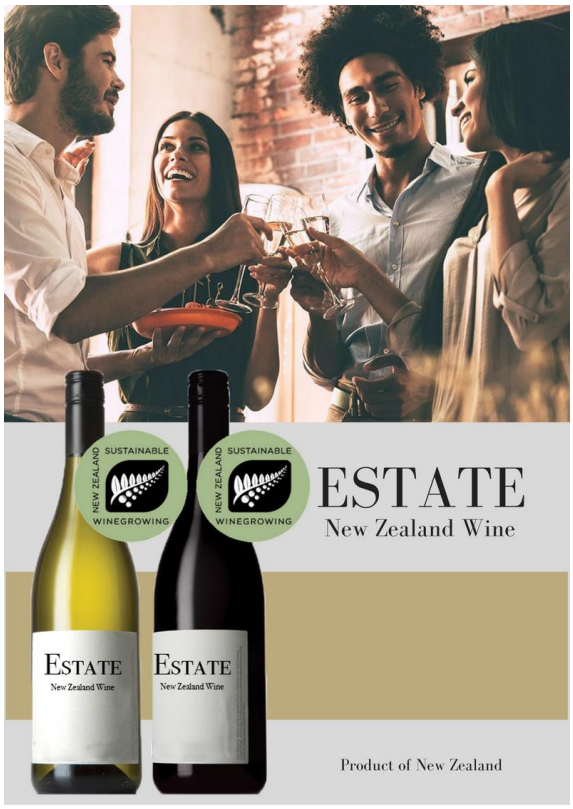
Condition 4



7.2.1. Advertisements with Social Brand Personality

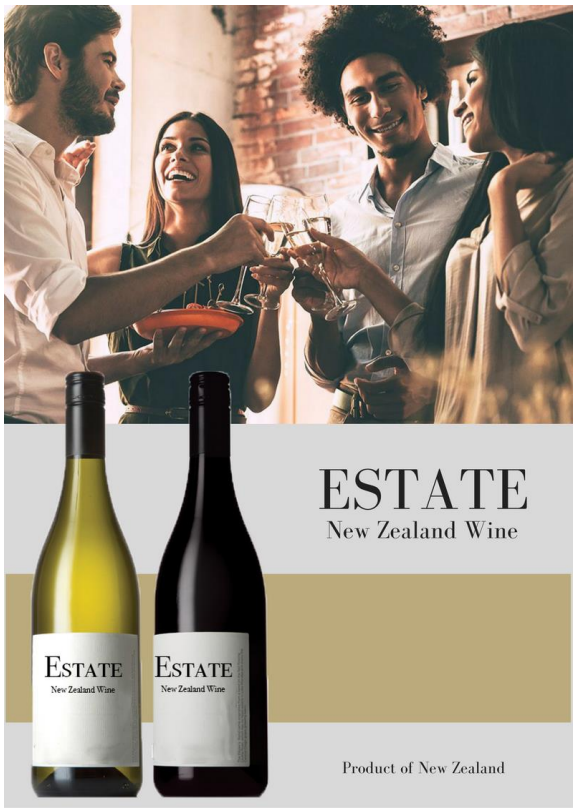
Condition 5

Condition 6



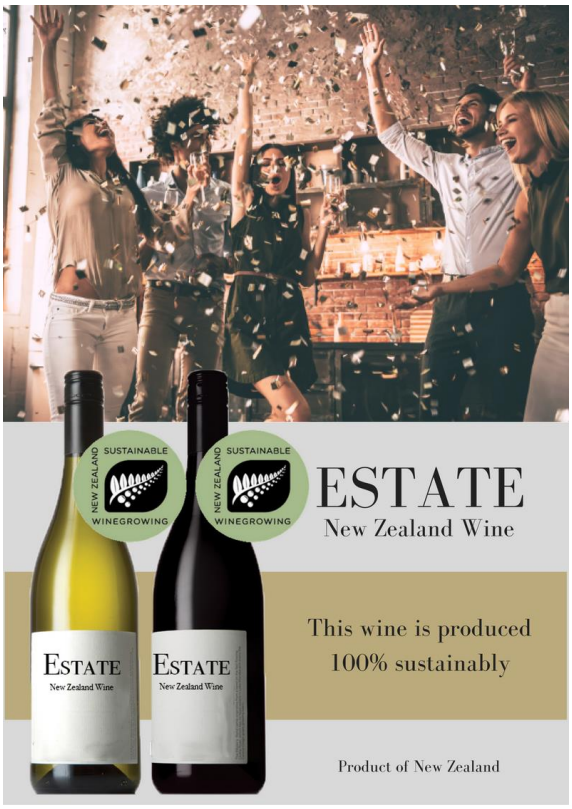
Condition 7

Condition 8

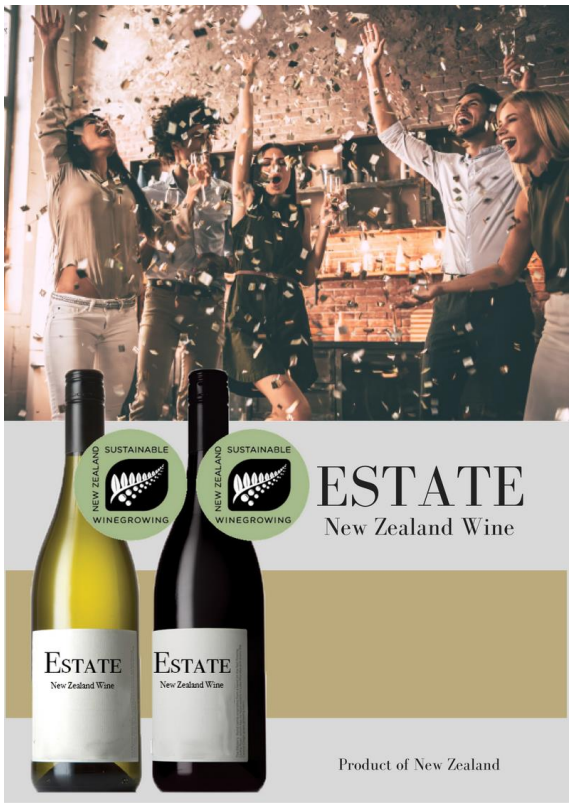


7.2.3. Advertisements with Excitement Brand Personality

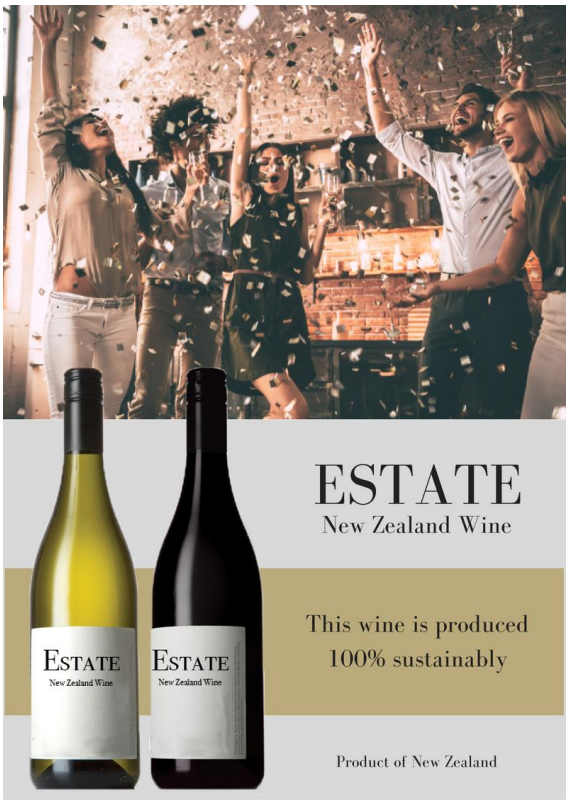
Condition 9



Condition 10



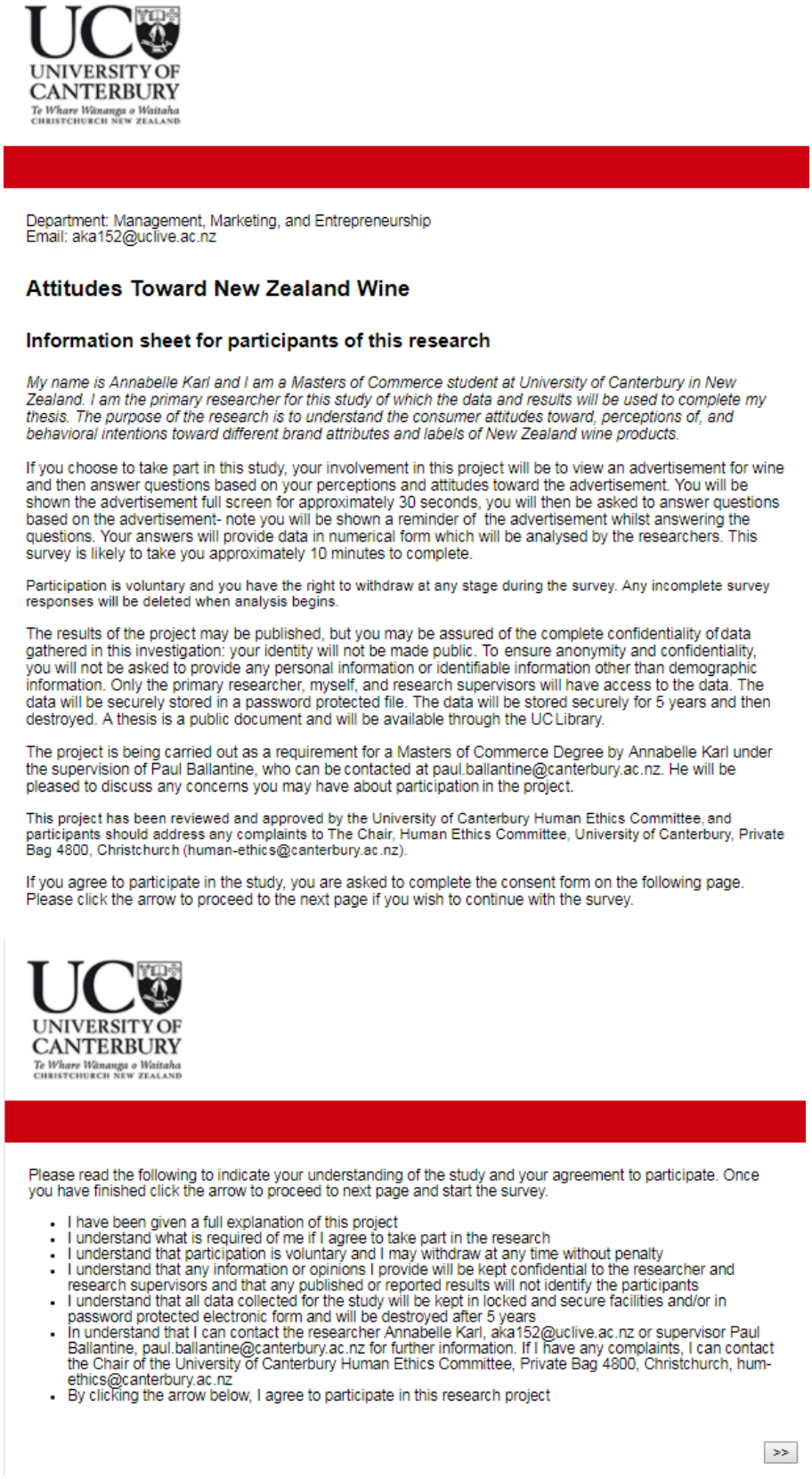
Condition 11



Condition 12

7.3. Final Survey

7.3.1. Section One: Information and Consent



UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

Department: Management, Marketing, and Entrepreneurship
Email: aka152@uclive.ac.nz

Attitudes Toward New Zealand Wine

Information sheet for participants of this research

My name is Annabelle Karl and I am a Masters of Commerce student at University of Canterbury in New Zealand. I am the primary researcher for this study of which the data and results will be used to complete my thesis. The purpose of the research is to understand the consumer attitudes toward, perceptions of, and behavioral intentions toward different brand attributes and labels of New Zealand wine products.

If you choose to take part in this study, your involvement in this project will be to view an advertisement for wine and then answer questions based on your perceptions and attitudes toward the advertisement. You will be shown the advertisement full screen for approximately 30 seconds, you will then be asked to answer questions based on the advertisement- note you will be shown a reminder of the advertisement whilst answering the questions. Your answers will provide data in numerical form which will be analysed by the researchers. This survey is likely to take you approximately 10 minutes to complete.

Participation is voluntary and you have the right to withdraw at any stage during the survey. Any incomplete survey responses will be deleted when analysis begins.

The results of the project may be published, but you may be assured of the complete confidentiality of data gathered in this investigation: your identity will not be made public. To ensure anonymity and confidentiality, you will not be asked to provide any personal information or identifiable information other than demographic information. Only the primary researcher, myself, and research supervisors will have access to the data. The data will be securely stored in a password protected file. The data will be stored securely for 5 years and then destroyed. A thesis is a public document and will be available through the UC Library.

The project is being carried out as a requirement for a Masters of Commerce Degree by Annabelle Karl under the supervision of Paul Ballantine, who can be contacted at paul.ballantine@canterbury.ac.nz. He will be pleased to discuss any concerns you may have about participation in the project.

This project has been reviewed and approved by the University of Canterbury Human Ethics Committee, and participants should address any complaints to The Chair, Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz).

If you agree to participate in the study, you are asked to complete the consent form on the following page. Please click the arrow to proceed to the next page if you wish to continue with the survey.

UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

Please read the following to indicate your understanding of the study and your agreement to participate. Once you have finished click the arrow to proceed to next page and start the survey.

- I have been given a full explanation of this project
- I understand what is required of me if I agree to take part in the research
- I understand that participation is voluntary and I may withdraw at any time without penalty
- I understand that any information or opinions I provide will be kept confidential to the researcher and research supervisors and that any published or reported results will not identify the participants
- I understand that all data collected for the study will be kept in locked and secure facilities and/or in password protected electronic form and will be destroyed after 5 years
- In understand that I can contact the researcher Annabelle Karl, aka152@uclive.ac.nz or supervisor Paul Ballantine, paul.ballantine@canterbury.ac.nz for further information. If I have any complaints, I can contact the Chair of the University of Canterbury Human Ethics Committee, Private Bag 4800, Christchurch, hum-ethics@canterbury.ac.nz
- By clicking the arrow below, I agree to participate in this research project

>>

7.3.2. Section Two: Prequalifying

Please select which age bracket you belong to:

- 18 years - 20 years
- 21 years - 25 years
- 26 years - 30 years
- 31 years - 35 years
- 36 years - 40 years
- 41+ years

Please indicate how often you consume wine:

- Every day
- 5 - 6 times a week
- 3 - 4 times a week
- 1 - 2 times a week
- 2 -3 times a month
- Once a month
- Less than once a month

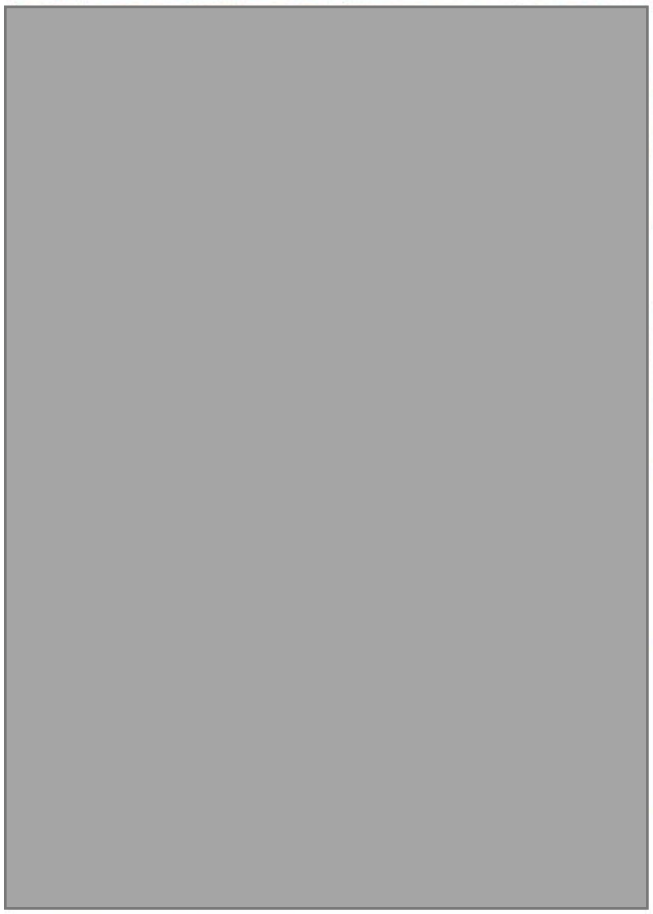
Please indicate how often you purchase wine:

- Every day
- 5 - 6 times a week
- 3 - 4 times a week
- 1 - 2 times a week
- 2 -3 times a month
- Once a month
- Less than once a month

>>

7.3.3. Section Three: First Stimuli Exposure

Please examine the following advertisement. After 30 seconds an arrow will appear at the bottom of the page and you will be able to proceed to the next page.



7.3.4. Section Four: Manipulation Checks

Select the extent to which you disagree or agree that the following words describe the brand featured in the advertisement:

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
Daring	○	○	○	○	○	○	○
Exciting	○	○	○	○	○	○	○
Spirited	○	○	○	○	○	○	○
Imaginative	○	○	○	○	○	○	○
Up-to-date	○	○	○	○	○	○	○

Select the extent to which you disagree or agree that the following words describe the brand featured in the advertisement:

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
Merry	○	○	○	○	○	○	○
Laid back	○	○	○	○	○	○	○
Original	○	○	○	○	○	○	○
Open	○	○	○	○	○	○	○
Sociable	○	○	○	○	○	○	○

Select the extent to which you disagree or agree with the following statements:

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
The product description suggests this product is sustainable	○	○	○	○	○	○	○
The product description suggests the product was produced sustainably	○	○	○	○	○	○	○
The product description suggests this brand produces sustainable wine	○	○	○	○	○	○	○

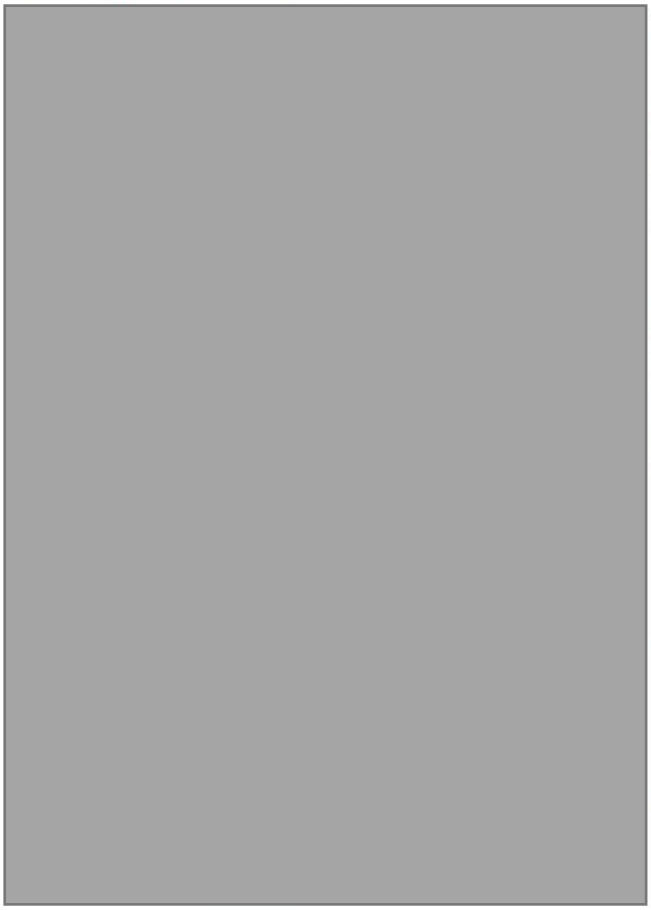
Select the extent to which you disagree or agree with the following statements:

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
The product in the advertisement has a sustainable certification	○	○	○	○	○	○	○
The product in advertisement has an eco-label certification	○	○	○	○	○	○	○
The eco-label in the advertisement suggests the product has been sustainably certified	○	○	○	○	○	○	○

>>

7.3.5. Section Five: Second Stimuli Exposure

Please familiarize yourself with the following advertisement. After 10 seconds an arrow will appear at the bottom of the page and you will be able to proceed to the next page.



7.3.6. Section Six: Dependent Variable Measures

Select the extent to which you disagree or agree with the following statements:

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
If I were looking for this type of product, my likelihood of purchasing the product in the advertisement would be high	○	○	○	○	○	○	○
If you are reading this select strongly disagree	○	○	○	○	○	○	○
If I were to buy this type of product, the probability that I would consider buying the product in the advertisement would be high	○	○	○	○	○	○	○
If I had to buy this type of product, my willingness to buy the product in the advertisement would be high	○	○	○	○	○	○	○

Select the extent to which you disagree or agree that the following words describe your perception of quality for the product in the advertisement:

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
Good	○	○	○	○	○	○	○
High	○	○	○	○	○	○	○
Excellent	○	○	○	○	○	○	○
Superior	○	○	○	○	○	○	○
Desirable	○	○	○	○	○	○	○

As a result of seeing the advertisement and reading the information displayed, please select the extent to which you disagree or agree that the following words describe your attitude towards the brand featured in advertisement:

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
Favorable	○	○	○	○	○	○	○
Positive	○	○	○	○	○	○	○
Pleasant	○	○	○	○	○	○	○
Attractive	○	○	○	○	○	○	○
Appetizing	○	○	○	○	○	○	○
Appealing	○	○	○	○	○	○	○
Distinctive	○	○	○	○	○	○	○
Novel	○	○	○	○	○	○	○
Fresh	○	○	○	○	○	○	○
Works well	○	○	○	○	○	○	○
Convincing	○	○	○	○	○	○	○
Consistent	○	○	○	○	○	○	○
Stylish	○	○	○	○	○	○	○
Modern	○	○	○	○	○	○	○
Up-to-date	○	○	○	○	○	○	○
Original	○	○	○	○	○	○	○
Unique	○	○	○	○	○	○	○
Interesting	○	○	○	○	○	○	○

>>

7.3.7. Section Seven: Covariate Measures

Select the extent to which you disagree or agree with the following statements:

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
Wine brands are part of my self-image							
Wine brands portray an image of me to others							
Wine brands tell others about me							
Wine brands tell me about other people							
Wine brands are fun to me							
Wine brands are exciting to me							

Select the extent to which you disagree or agree with the following statements:

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
The information in the advertisement was easy to understand							
I was able to comprehend the claims made in the advertisement							
If you are reading this select strongly agree							
The information in the advertisement made sense to me							

Select the extent to which you disagree or agree with the following statements:

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
I like to try the most unusual wines, even if I am not sure I would like them							
I think it is fun to try out wines I am not familiar with							
I enjoy trying new wines							
I like to drink exotic wines							
I like to try wines from different countries							

Select the extent to which you disagree or agree with the following statements:

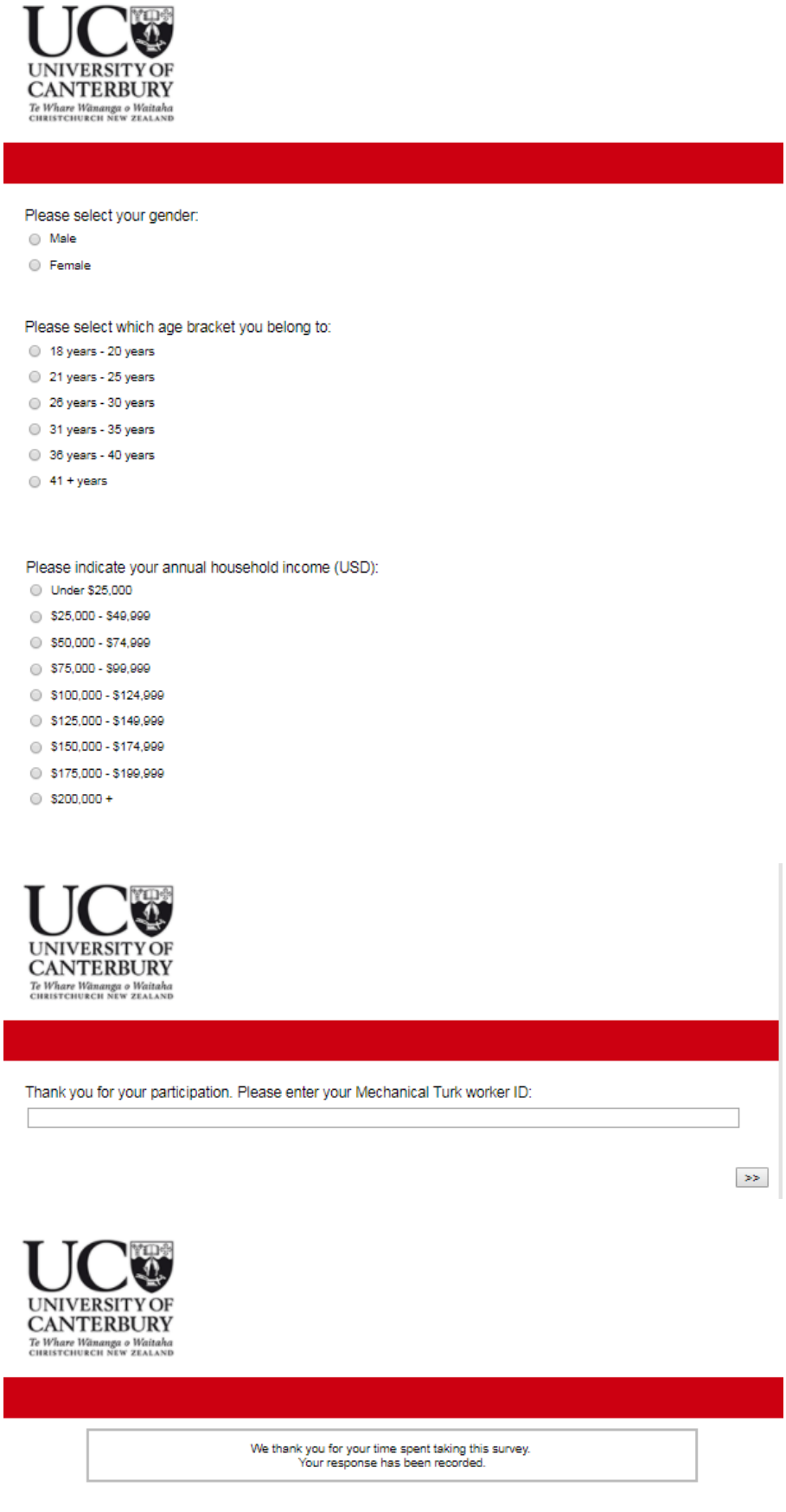
	Strongly disagree	Disagree	Somewhat disagree	Neither agree or disagree	Somewhat agree	Agree	Strongly agree
I often look at labels to see where the product has been produced							
I prefer to purchase local products, produced within my local area or state							
I prefer to purchase domestic products, produced within the United States of America							

Select the extent to which your attitude is unfavorable or favorable towards the following items:

	Very unfavorable	Unfavorable	Somewhat unfavorable	Neither favorable nor unfavorable	Somewhat favorable	Favorable	Very favorable
New Zealand as a whole							
Products made in New Zealand							
Wine produced in New Zealand							

>>

7.3.8. Section Eight: Demographics and Finish



Please select your gender:

- Male
- Female

Please select which age bracket you belong to:

- 18 years - 20 years
- 21 years - 25 years
- 26 years - 30 years
- 31 years - 35 years
- 36 years - 40 years
- 41 + years

Please indicate your annual household income (USD):

- Under $25,000
- $25,000 - $49,999
- $50,000 - $74,999
- $75,000 - $99,999
- $100,000 - $124,999
- $125,000 - $149,999
- $150,000 - $174,999
- $175,000 - $199,999
- $200,000 +

UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

Thank you for your participation. Please enter your Mechanical Turk worker ID:

>>

UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

We thank you for your time spent taking this survey.
Your response has been recorded.

7.4. Pre-test Recruitment

7.5. Human Ethics Committee Approval

UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

HUMAN ETHICS COMMITTEE

Secretary, Rebecca Robinson
Telephone: +64 03 369 4588, Extn 94588
Email: human-ethics@canterbury.ac.nz

Ref: HEC 2017/59/LR

8 August 2017

Annabelle Karl
Business and Economics
UNIVERSITY OF CANTERBURY

Dear Annabelle

Thank you for submitting your low risk application to the Human Ethics Committee for the research proposal titled "Attitudes Towards New Zealand Wine Held by Millenials in the United States".

I am pleased to advise that this application has been reviewed and approved.

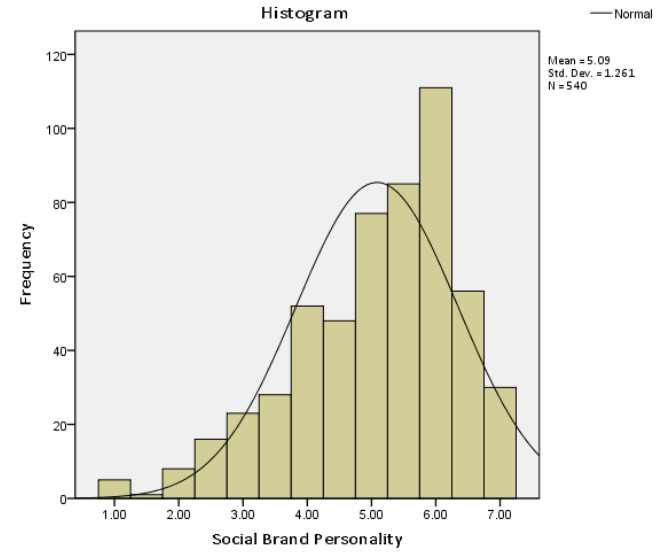
With best wishes for your project.

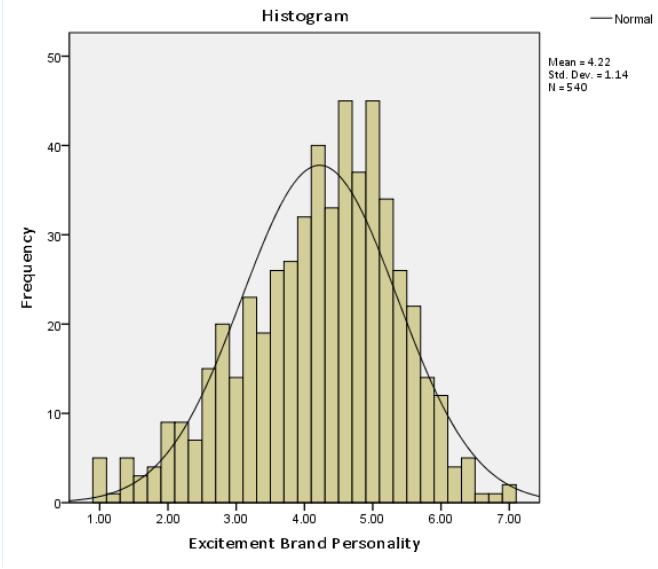
Yours sincerely

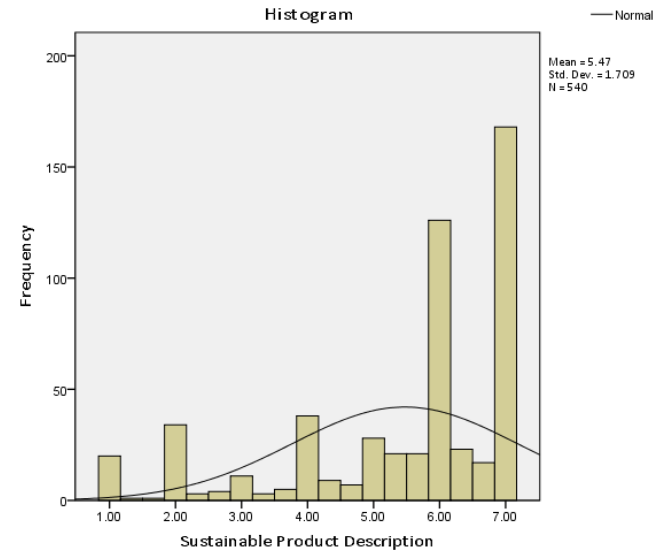
pp. R. Robinson

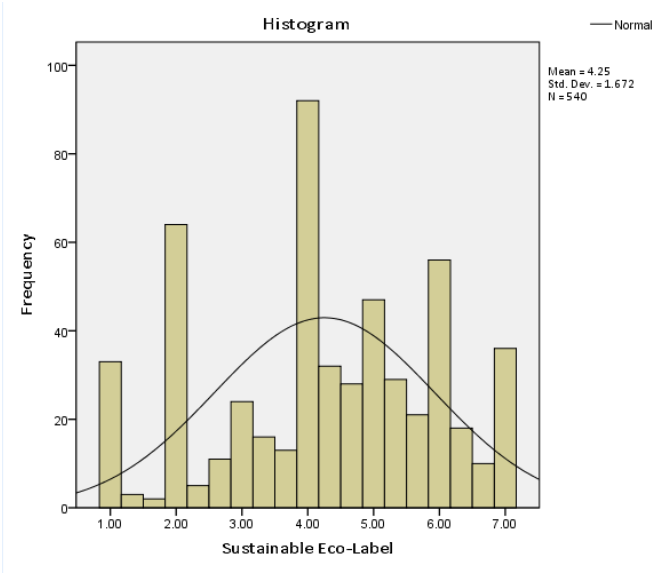
Associate Professor Jane Maidment
Chair, Human Ethics Committee

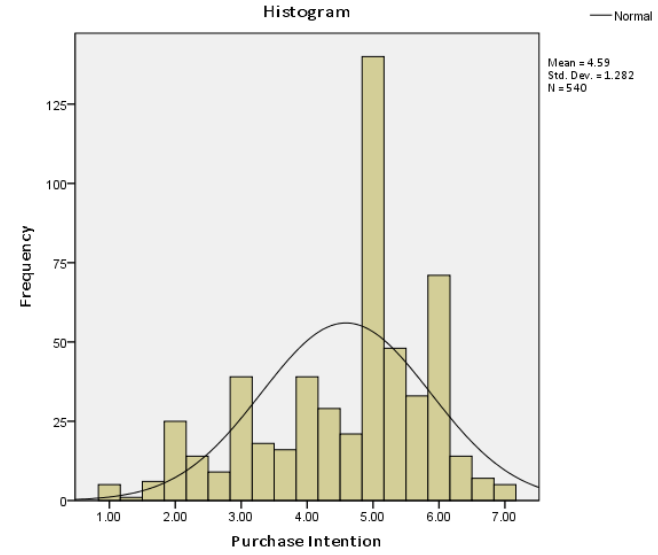
7.6. Histograms

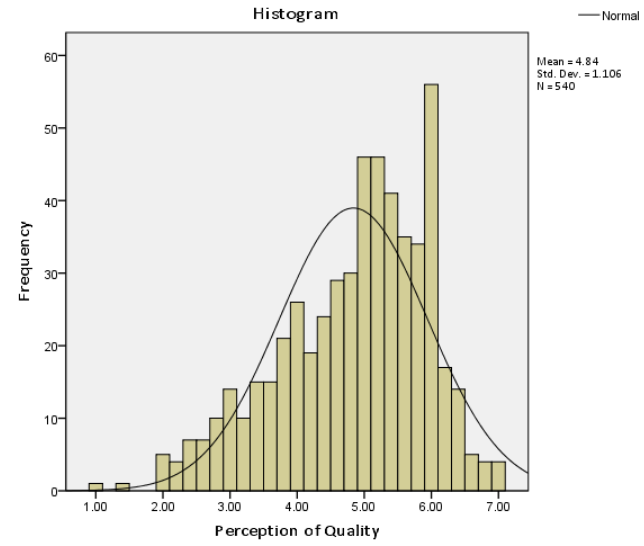


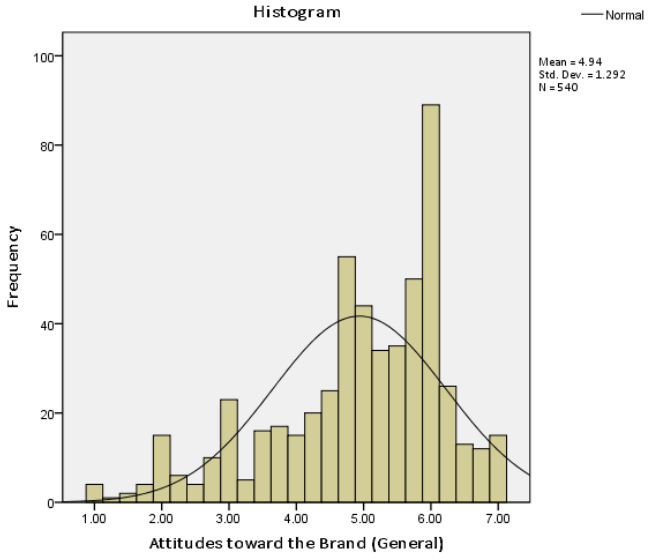


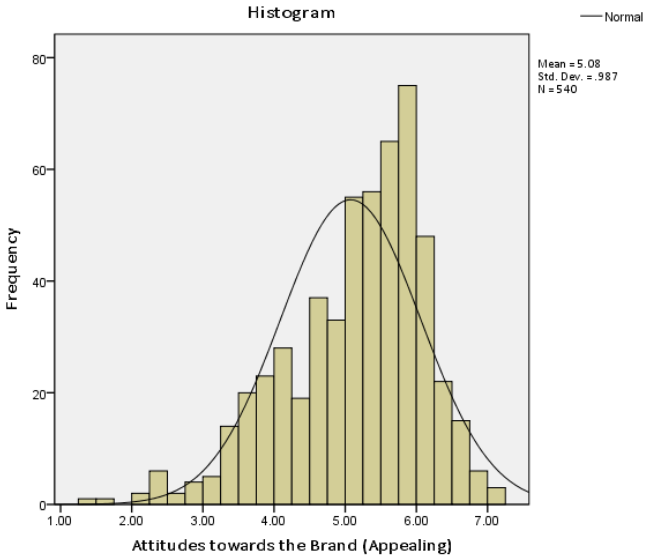


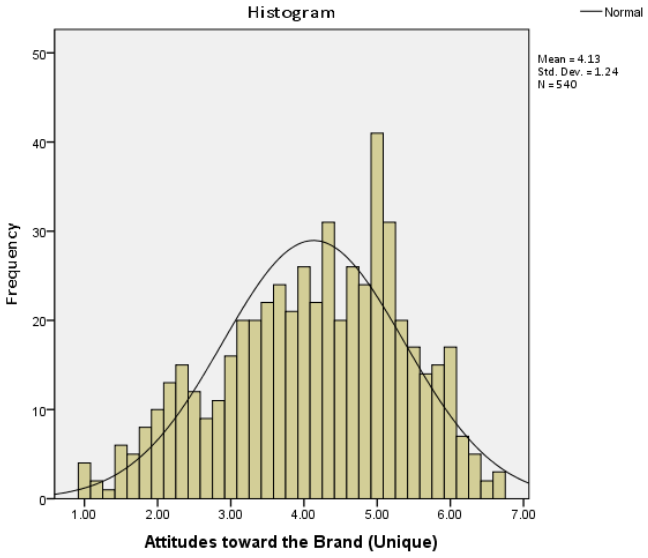

Histogram
Normal
Mean = 4.25
Std. Dev. = 1.672
N = 540
Frequency
Sustainable Eco-Label

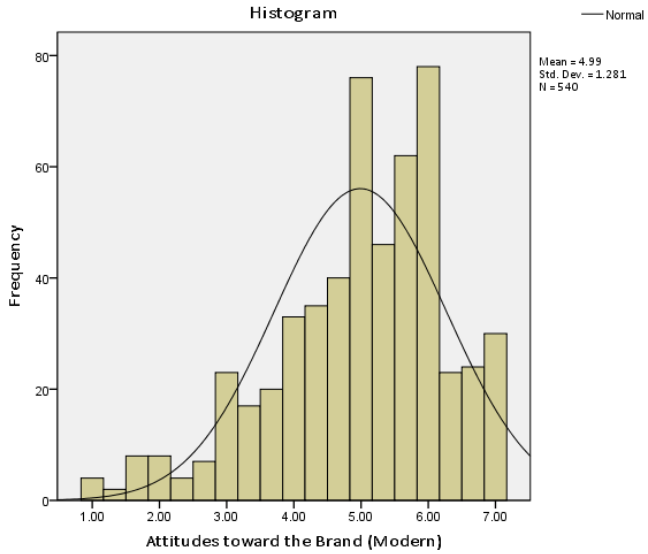

Histogram
Normal
Mean = 4.59
Std. Dev. = 1.282
N = 540
Frequency
Purchase Intention

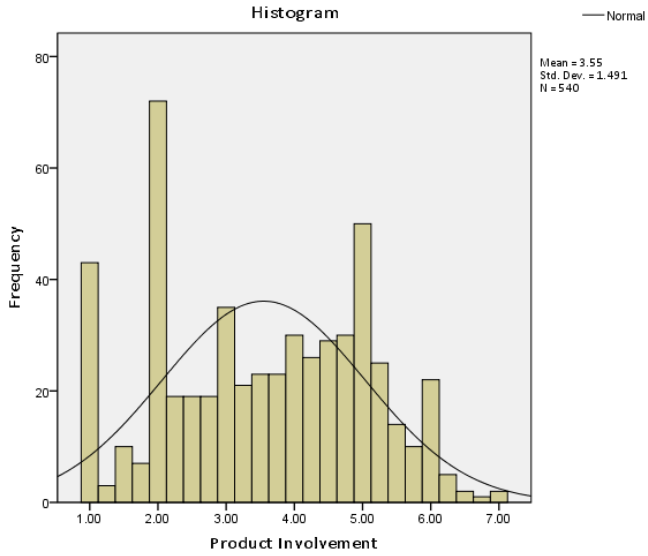

Histogram
Normal
Mean = 4.84
Std. Dev. = 1.106
N = 540
Frequency
Perception of Quality

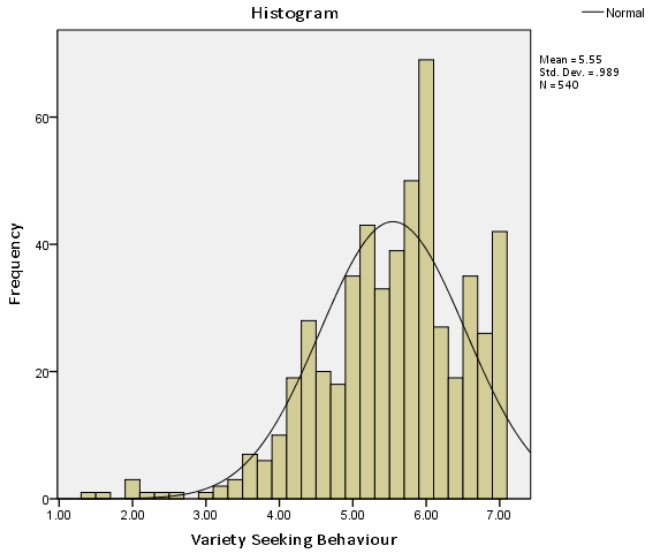

Histogram
Normal
Mean = 4.94
Std. Dev. = 1.292
N = 540
Frequency
Attitudes toward the Brand (General)

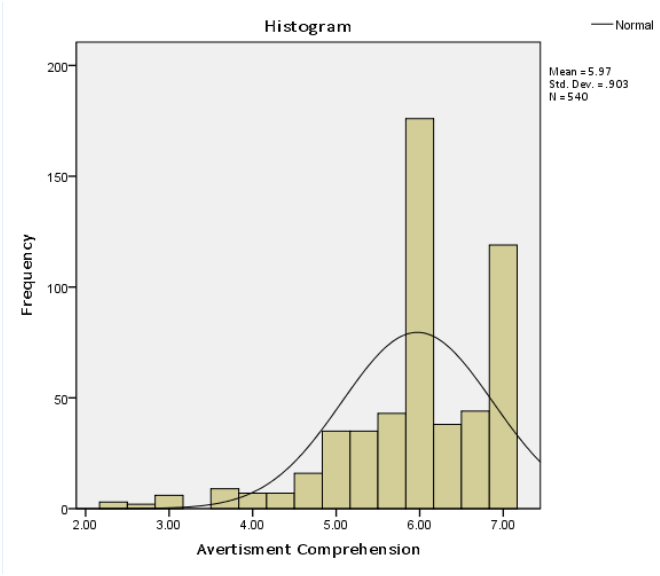

Histogram
Normal
Mean = 5.08
Std. Dev. = .987
N = 540
Frequency
Attitudes towards the Brand (Appealing)

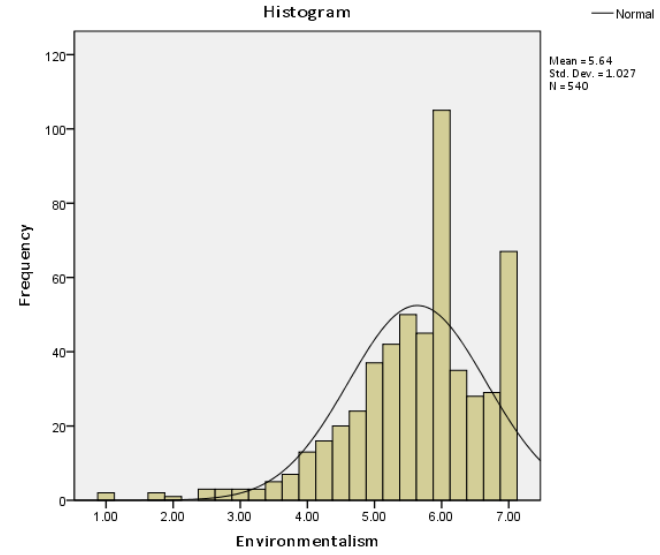

Histogram
Normal
Mean = 4.13
Std. Dev. = 1.24
N = 540
Frequency
Attitudes toward the Brand (Unique)

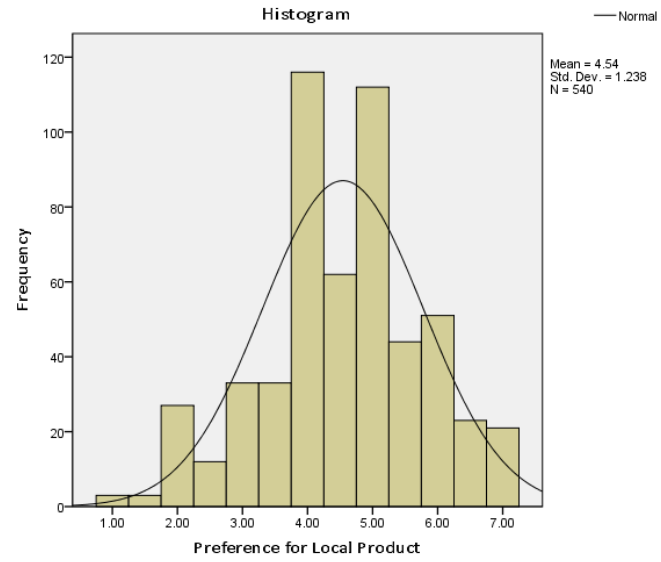

Histogram
Normal
Mean = 4.99
Std. Dev. = 1.281
N = 540
Frequency
Attitudes toward the Brand (Modern)

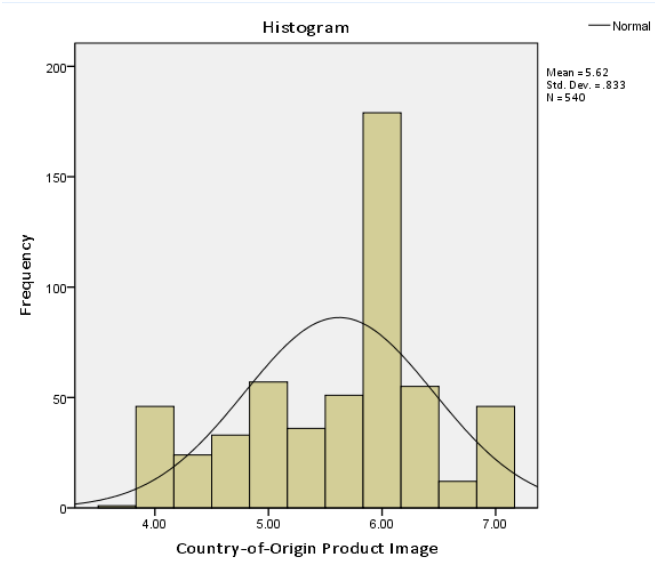

Histogram
Normal
Mean = 3.55
Std. Dev. = 1.491
N = 540
Frequency
Product Involvement


Histogram
Normal
Mean = 5.55
Std. Dev. = .989
N = 540
Frequency
Variety Seeking Behaviour


Histogram
Normal
Mean = 5.97
Std. Dev. = .903
N = 540
Frequency
Avertisment Comprehension


Histogram
Normal
Mean = 5.64
Std. Dev. = 1.027
N = 540
Frequency
Environmentalism


Histogram
Normal
Mean = 4.54
Std. Dev. = 1.238
N = 540
Frequency
Preference for Local Product


Histogram
Normal
Mean = 5.62
Std. Dev. = .833
N = 540
Frequency
200
150
100
50
0
4.00
5.00
6.00
7.00
Country-of-Origin Product Image

7.7. Correlation Matrix

	BP2	BP3	PD	ECO	PI	QUAL	ATTB_G	ATT_A	ATT_U	ATT_M	PCI	VAR	ADC	ENV	LP	COO
Social Brand Personality (BP2)	1	.625**	.150**	.184**	.430**	.402**	.460**	.498**	.343**	.449**	.195**	.169**	.155**	.090*	-.015	.159*
Excitement Brand Personality (BP3)		1	.224**	.290**	.596**	.615**	.614**	.640**	.648**	.622**	.320**	.108*	.137**	.042	.120**	.182**
Sustainable Product Description (PD)			1	.569**	.350**	.290**	.254**	.240**	.249**	.182**	.055	.094*	.333**	.077	.047	.038
Sustainable Eco-Label (ECO)				1	.347**	.353**	.313**	.342**	.336**	.237**	.140**	.103*	.241**	.008	-.005	.071
Purchase Intention (PI)					1	.782**	.806**	.785**	.593**	.631**	.323**	.236**	.255**	.108*	.134**	.249**
Perception of Quality (QUAL)						1	.795**	.839**	.703**	.663**	.323**	.166**	.262**	.026	.121**	.240**
Attitudes toward the Brand: General (ATTB_G)							1	.845**	.654**	.651**	.324**	.224**	.277**	.087*	.089*	.289**
Attitudes toward the Brand: Appealing (ATT_A)								1	.678**	.710**	.286**	198**	.287**	.068	.073	.282**
Attitudes toward the Brand: Unique (ATT_U)									1	.635**	.305**	.086*	.184**	.008	.152**	.171**
Attitudes toward the Brand: Modern (ATT_M)										1	.252**	.152**	.186**	.013	.034	.167**
Product Involvement (PCI)											1	.197**	.040	.057	.116**	.194**
Variety Seeking Behaviour (VAR)												1	.165**	.241**	.008	.312**
Advertisement Comprehension (ADC)													1	.141**	.009	.179**
Environmentalism (ENV)														1	.120**	.199**
Preference for Local Products (LP)															1	.036
Country-of-Origin Product Image (COO)																1